

The Industrial Revolution – Imperialism

Industrial Revolution

- Societal transition from primarily agricultural economy to mechanized and manufacturing and service-based economy
- Begins in Britain Mid 1700s
- Far reaching effects on global economy, social relations and culture

Beginning of Industrial Revolution

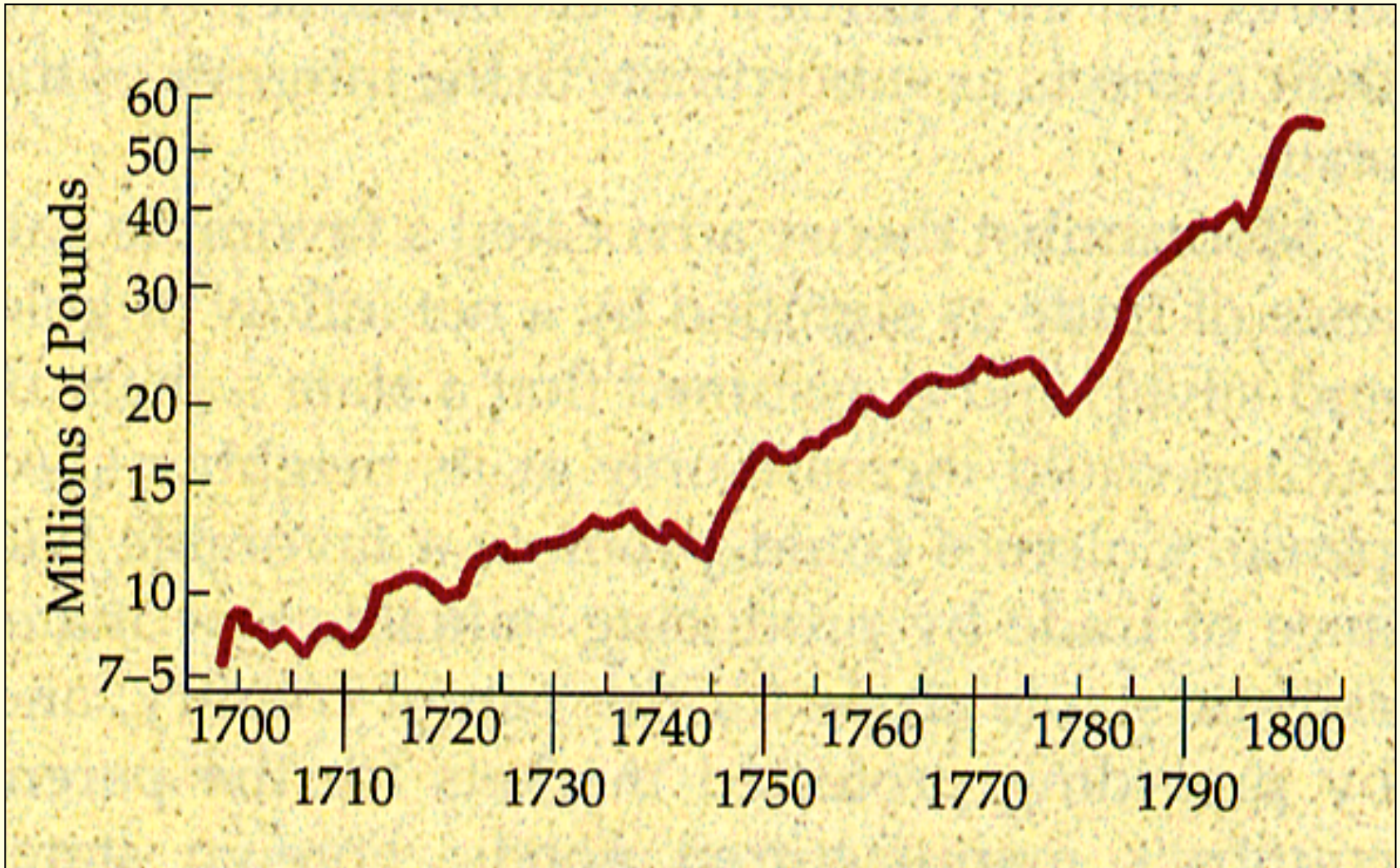
- When and where did the industrial revolution begin?

- In Great Britain in the mid to late 1700s
- Raw materials: Coal, Iron and Timber
- Rivers Canals (Easy Shipping)
- Existing textile industry
- Stable Representative Government (Protection property)

- Why Great Britain?

- Flow of capital
- Second agricultural revolution
- Mercantilism and cottage industries
- Resources: coal, iron ore, and water power

Value of Britain's Foreign trade between 1700 and 1800



Pounds = British currency

British Canals and Navigable Rivers



Great Britain: Canals and Navigable Rivers

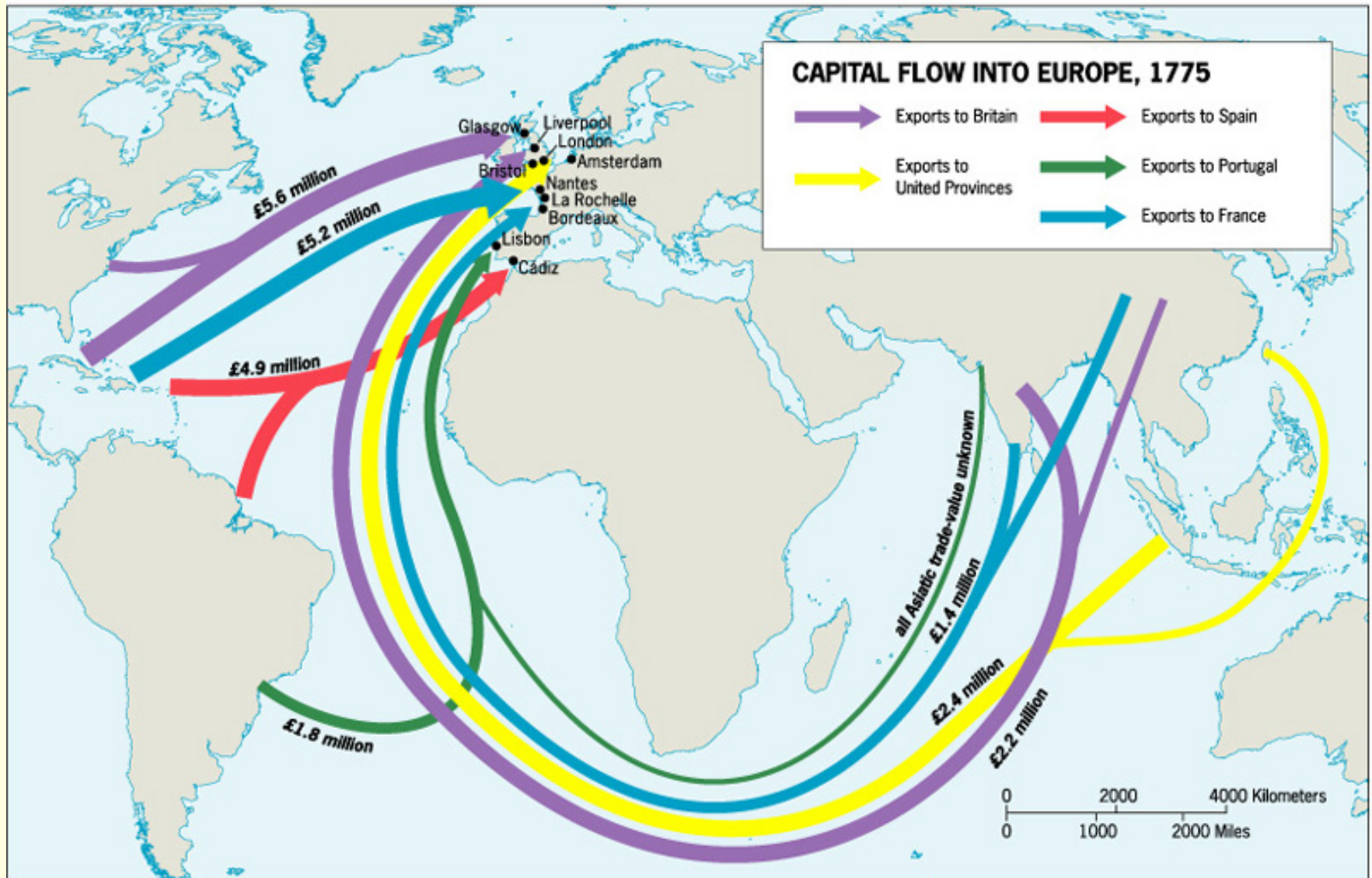
REVOLUTIONS OF INDUSTRIALIZATION, 1750-1914

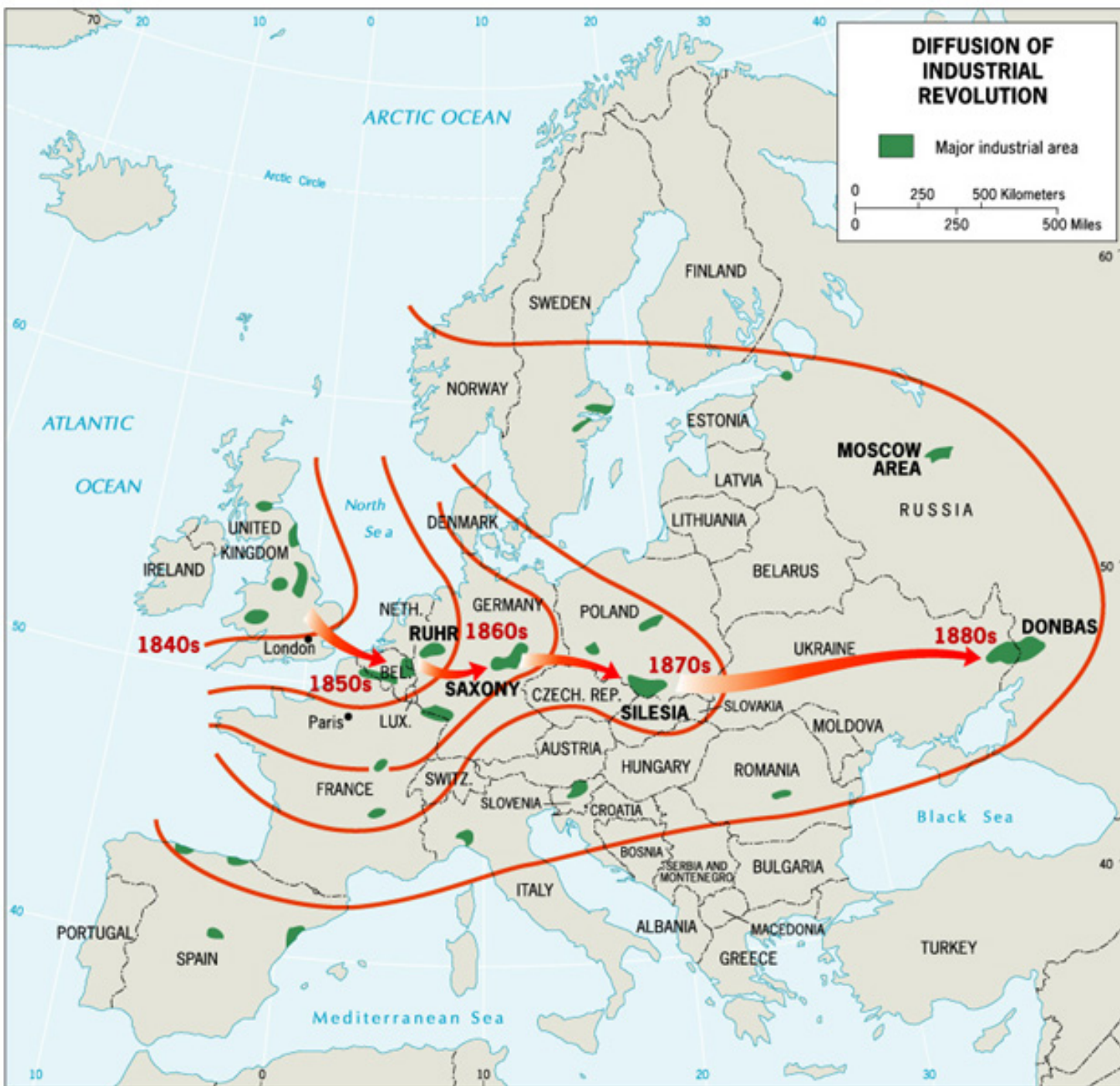
- New energy sources
 - Fossil fuels
 - Steam Engine – coal
 - Internal Combustion – oil



Flow of Capital into Europe, 1775

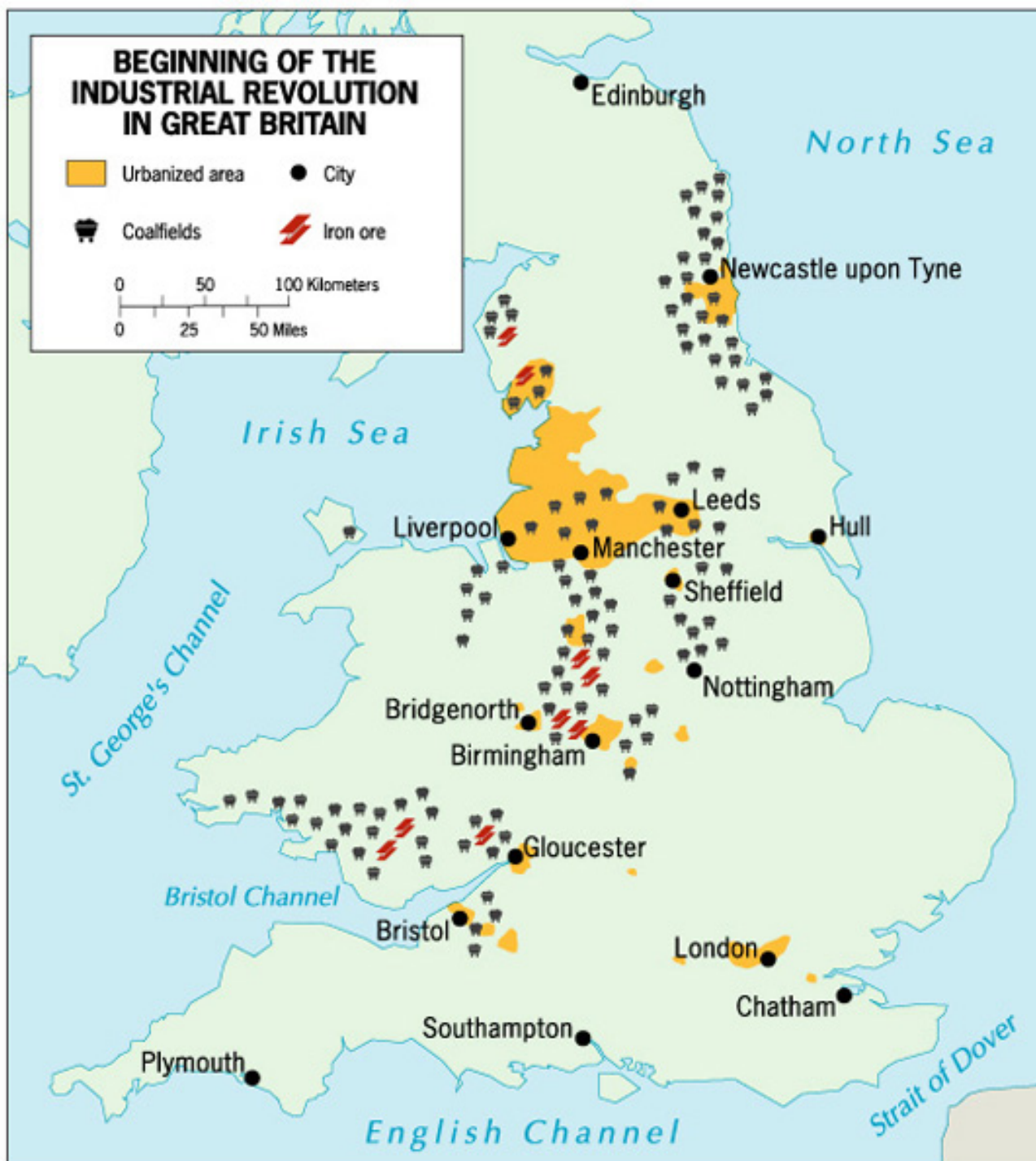
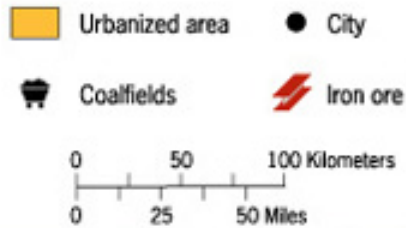
Needed flow of capital in order to fuel the industrial revolution.





Diffusion of Industrial Revolution

BEGINNING OF THE INDUSTRIAL REVOLUTION IN GREAT BRITAIN



Textiles
Production:
Liverpool and
Manchester

Iron Production:
Birmingham

Coal Mining:
Newcastle

REVOLUTIONS OF INDUSTRIALIZATION, 1750-1914

- **First Industrial Revolution**

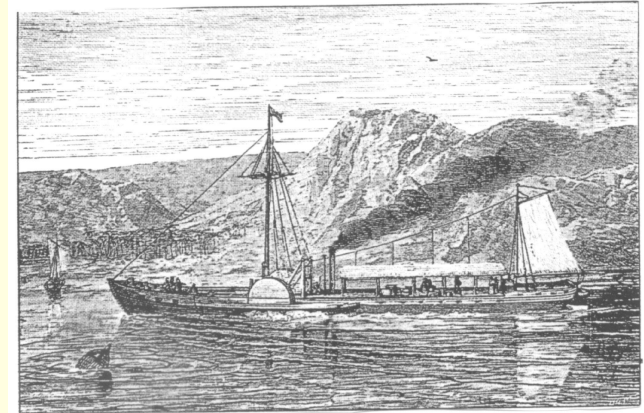
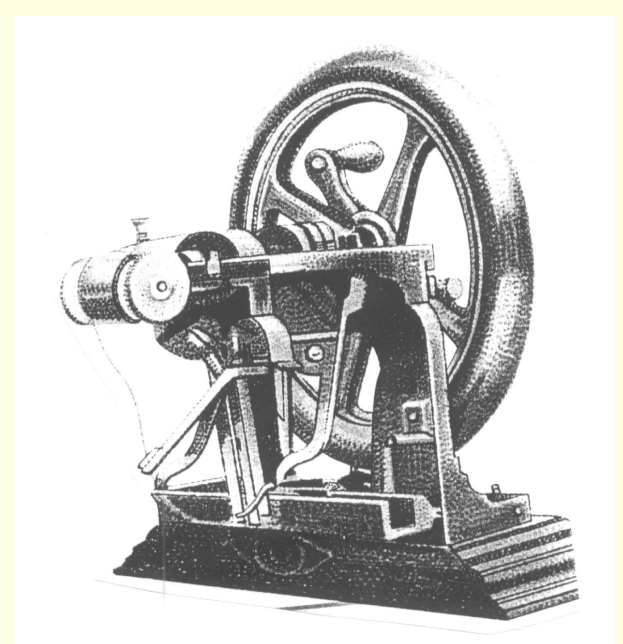
- Britain
- 1760s-1850
- Textiles, Steam Power, and Iron

- **Second (wave) Industrial Revolution**

- Germany, USA, France, Belgium, Russia
- 1850s-1914
- Steel, Chemicals and electronics
- Japan ended its self-imposed isolation and also began to industrialize by end of 19th century

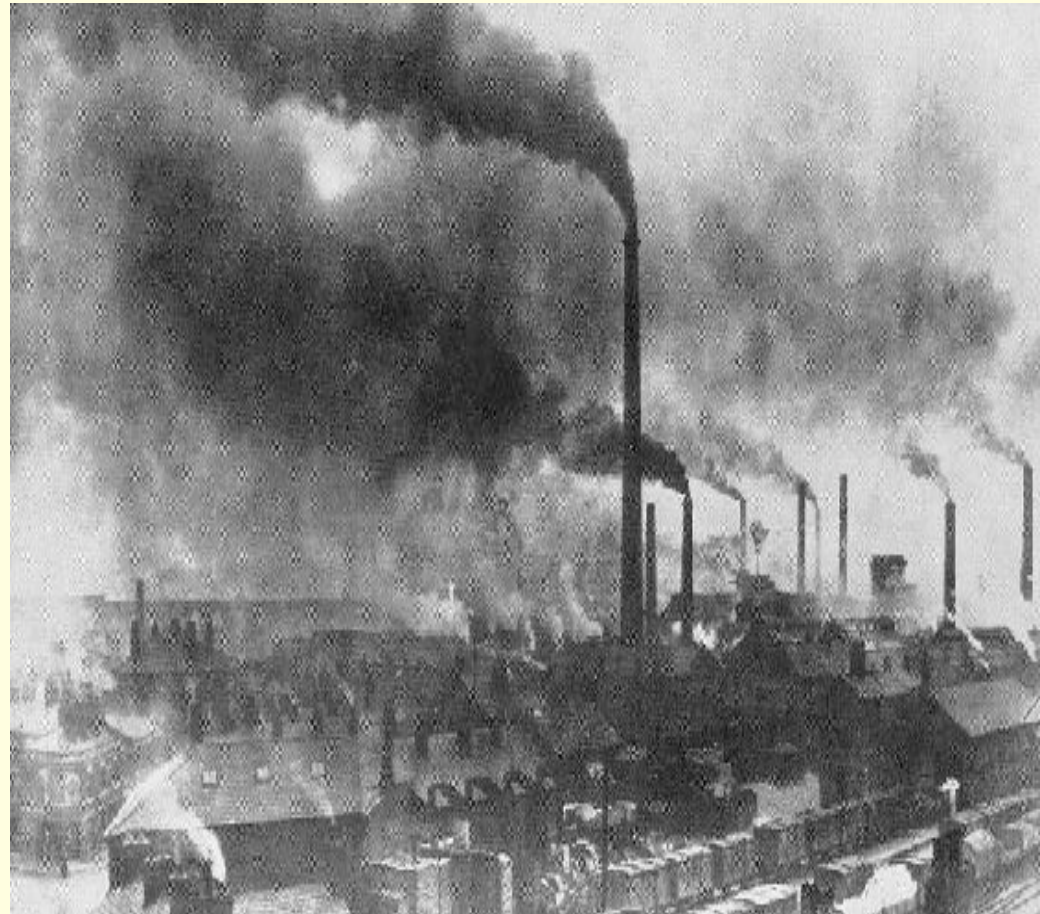
Inventions and Industrialization

- Factories – buildings that contain machinery for manufacturing
- Replaces Cottage Industries
- James Watt “Father of Industrial Revolution”
 - Improvements on steam engines
 - Lead to powering trains and ships
 - No longer need to rely on wind power
 - Can travel upstream
- Eli Whitney – Cotton Gin
- Thomas Edison – Electric Light Bulb
- Samuel FB Morse – Telegraph
- Alexander Graham Bell – Telephone



Effects of the Industrial Revolution

- Division of Labor
- Urbanization –
Movement of people from
rural farm areas to cities
 - JOBS!
- Lower costs of products
due to mass production
- Population Growth
- Improvements in
transportation
- Overcrowding in Cities
- Labor Unions
- Higher Standard of
Living
- POLLUTION!



Effects of Industrial Revolution

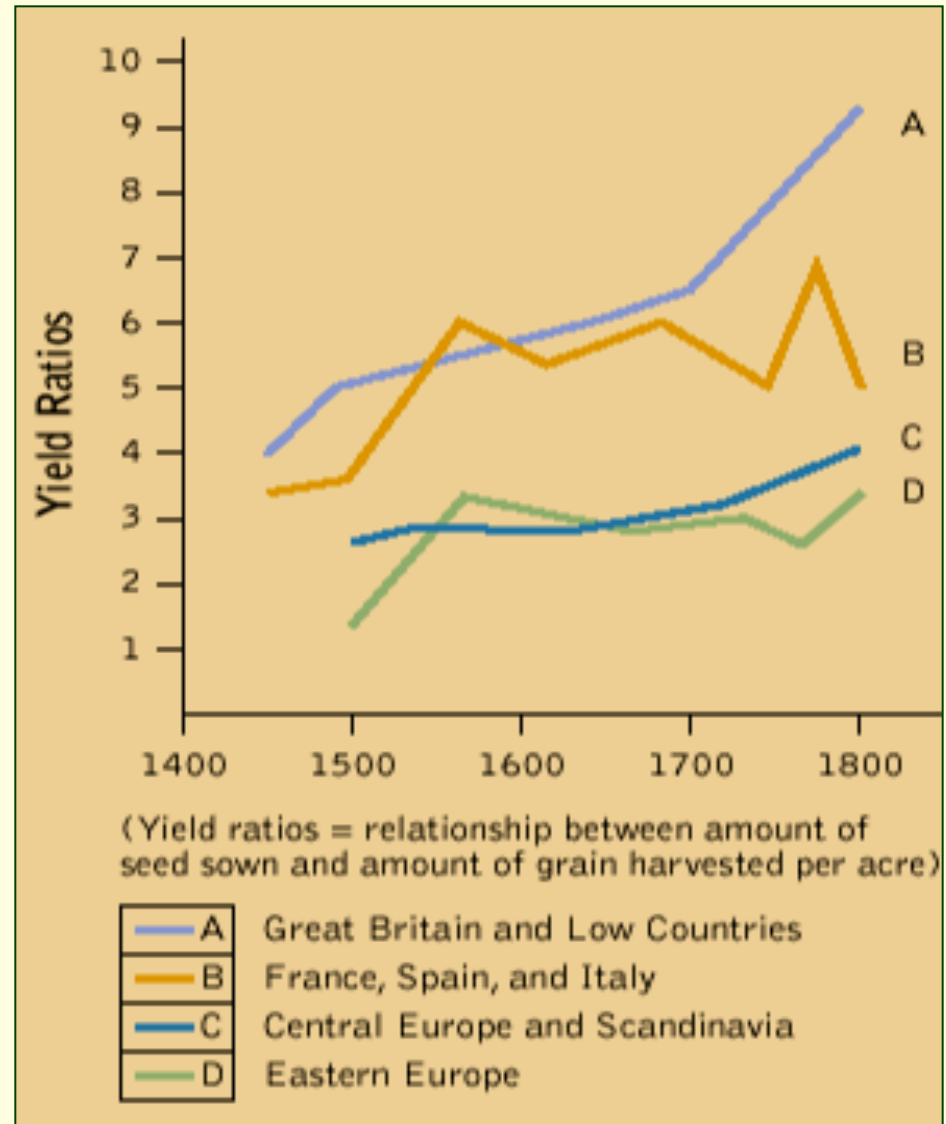
- Worker specialization (Division of Labor)
- Creation of tenement apartments (owned by factory owners) in slums



Second Agricultural Revolution

- Mechanization of farming
 - Larger food supply
 - Fewer Farmers
 - Crop Rotation
 - Enclosure Movement

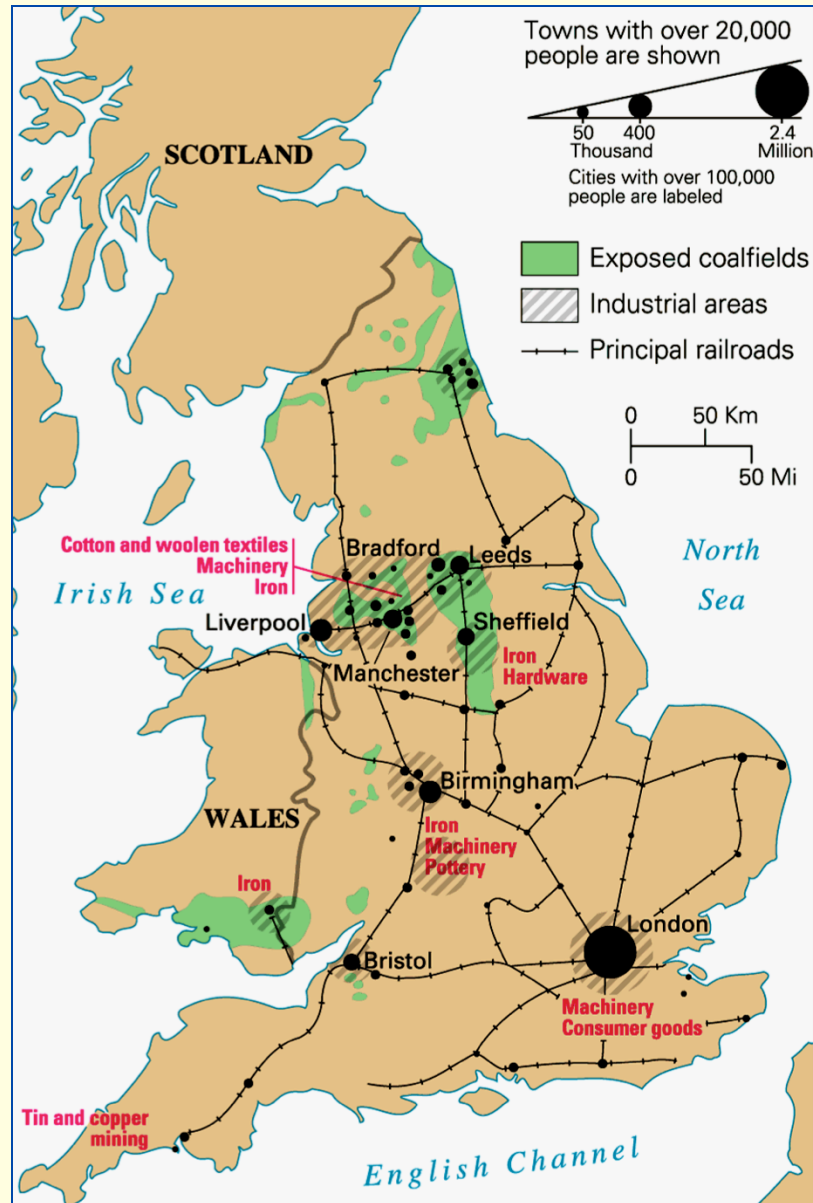
**Agricultural
Yield Ratios,
1400-1800**



“Enclosed” Lands Today

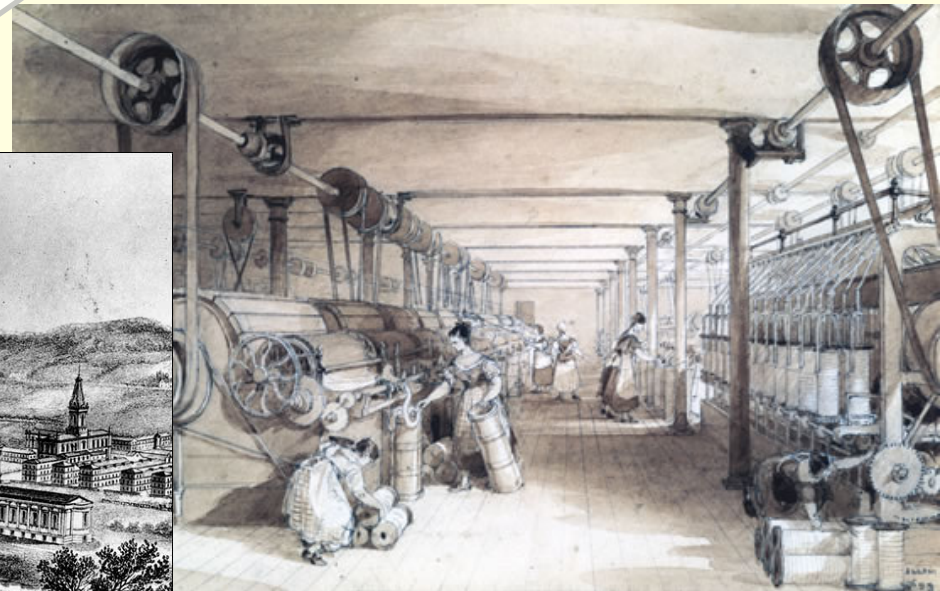
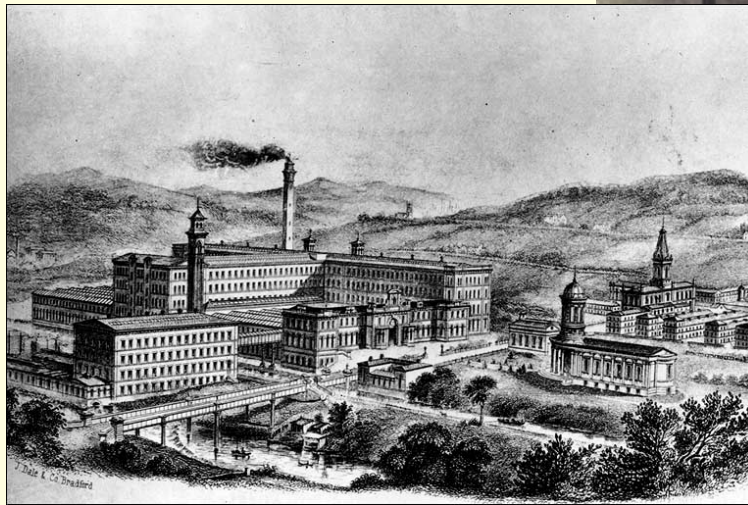
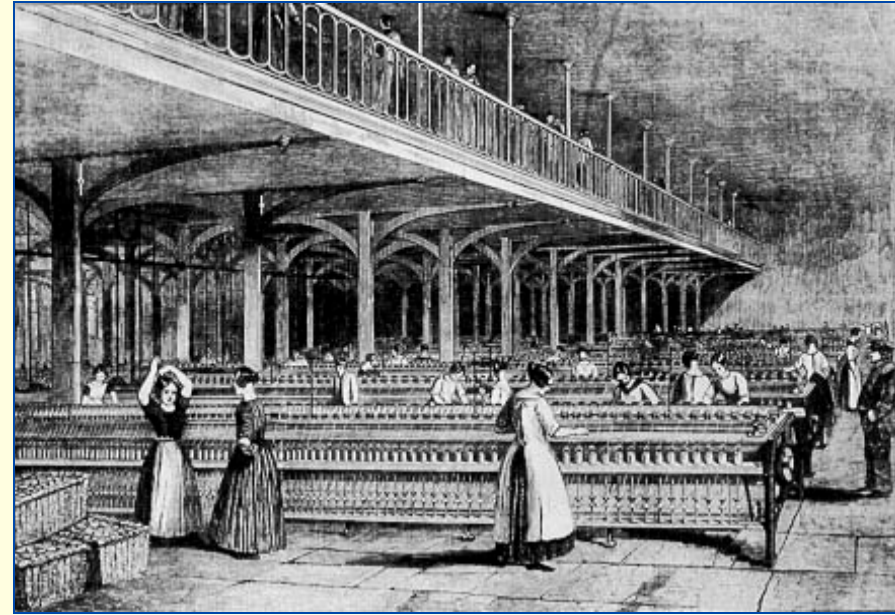
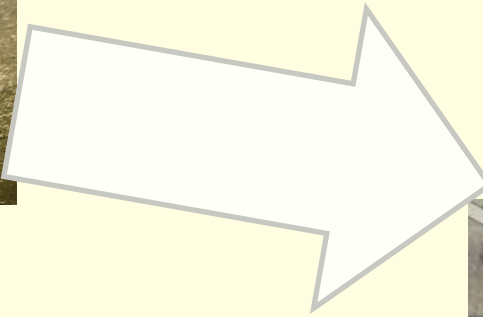


Coalfields & Industrial



REVOLUTIONS OF INDUSTRIALIZATION, 1750-1914

- The factory system



REVOLUTIONS OF INDUSTRIALIZATION, 1750-1914

- Effects of Class Structure

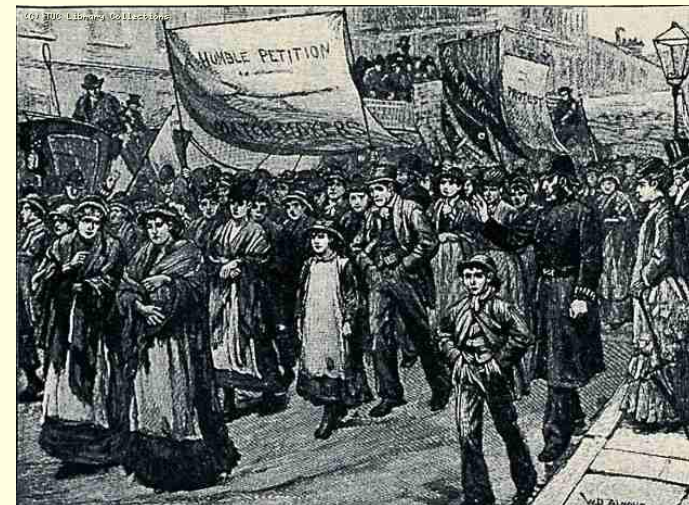
- Working Class (lowest)

- Low-skilled/replaceable

- Middle Class – “Bourgeoisie”

- Industrialists
 - Professionals – “White collar work”

- Captains of Industry – owners of the large companies

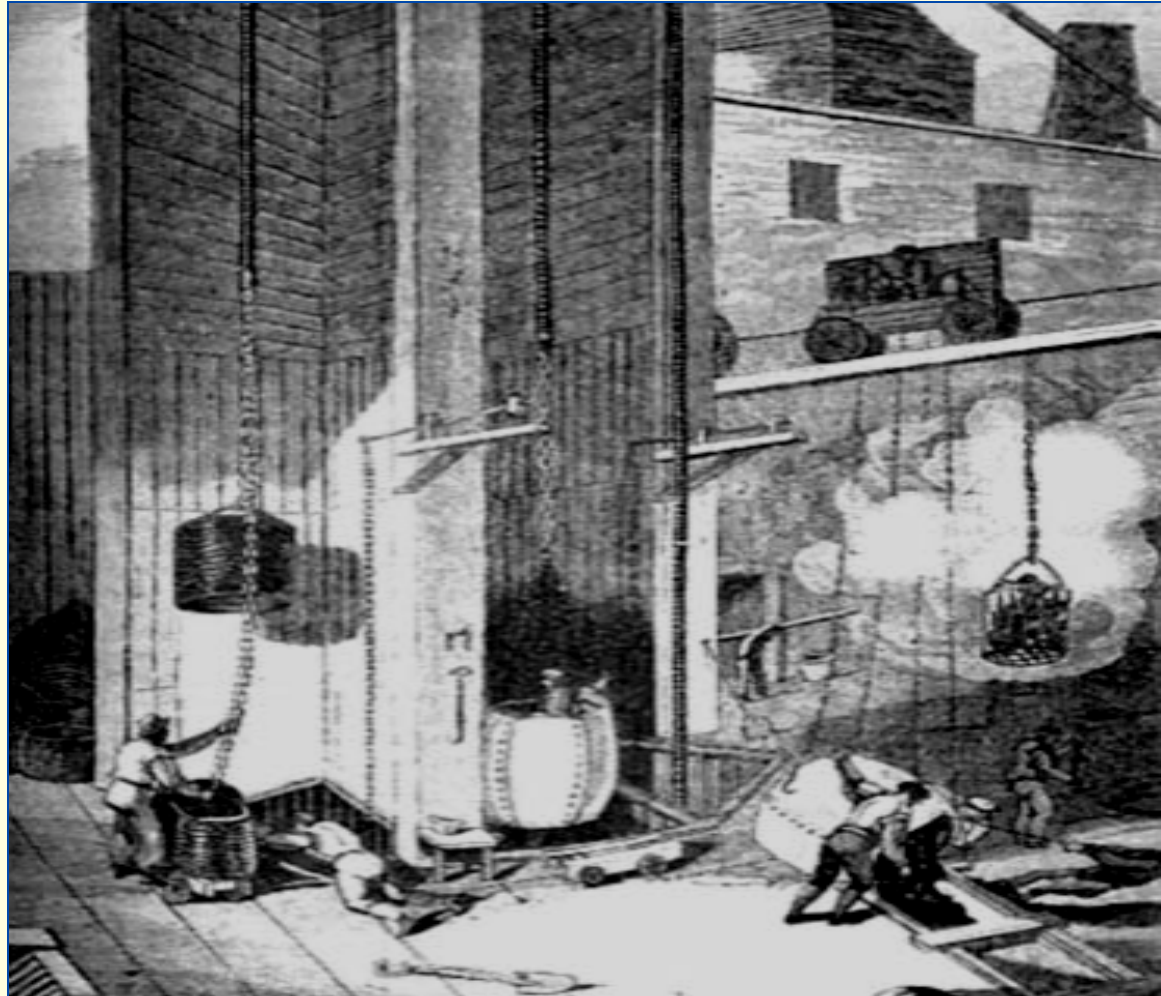


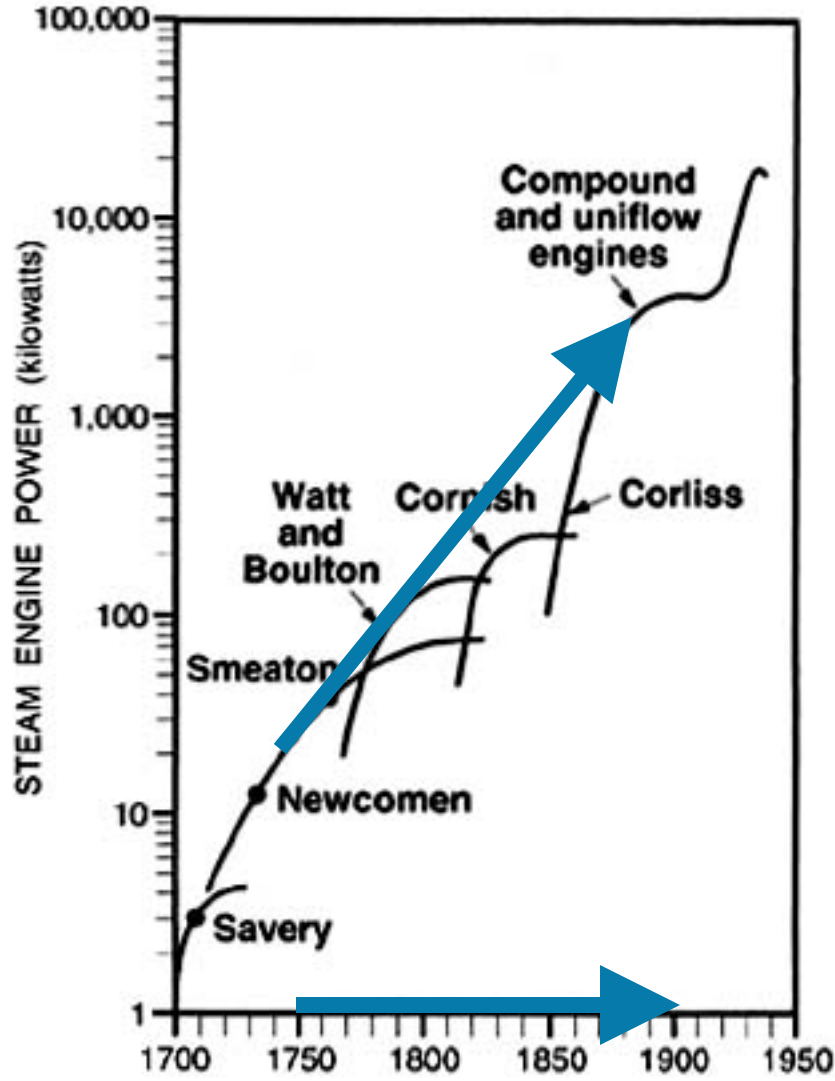
Effects of Industrial Revolution on Society Cont.

- **“Cult of Domesticity”**
 - Ideal female homemaker
- **Consumerism and Leisure time (disposable income)**
 - Bike riding, boating
 - Soccer in France and England
 - Baseball in US

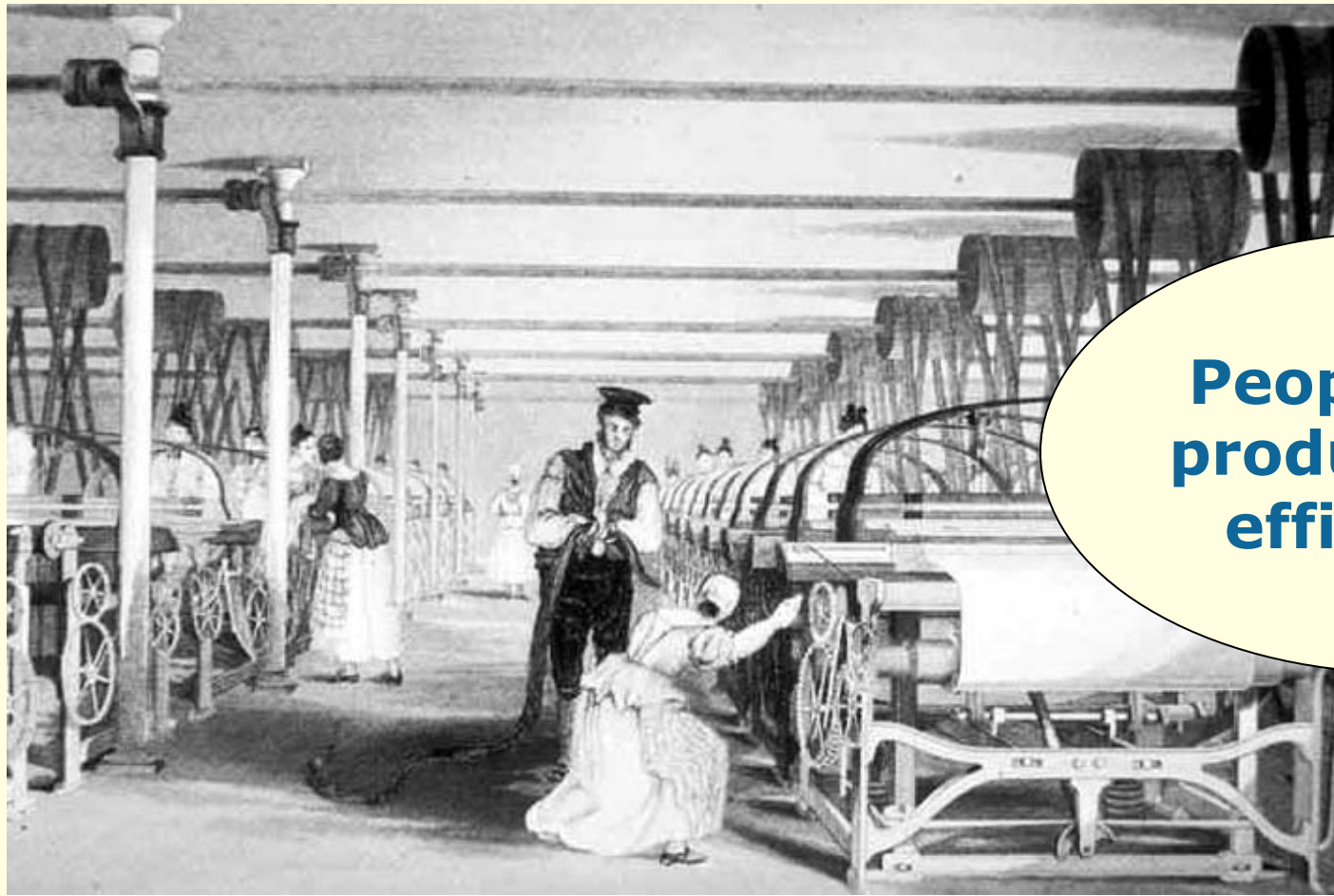


James Watt's Steam Engine





The increasing power of steam engines in Big Era Seven

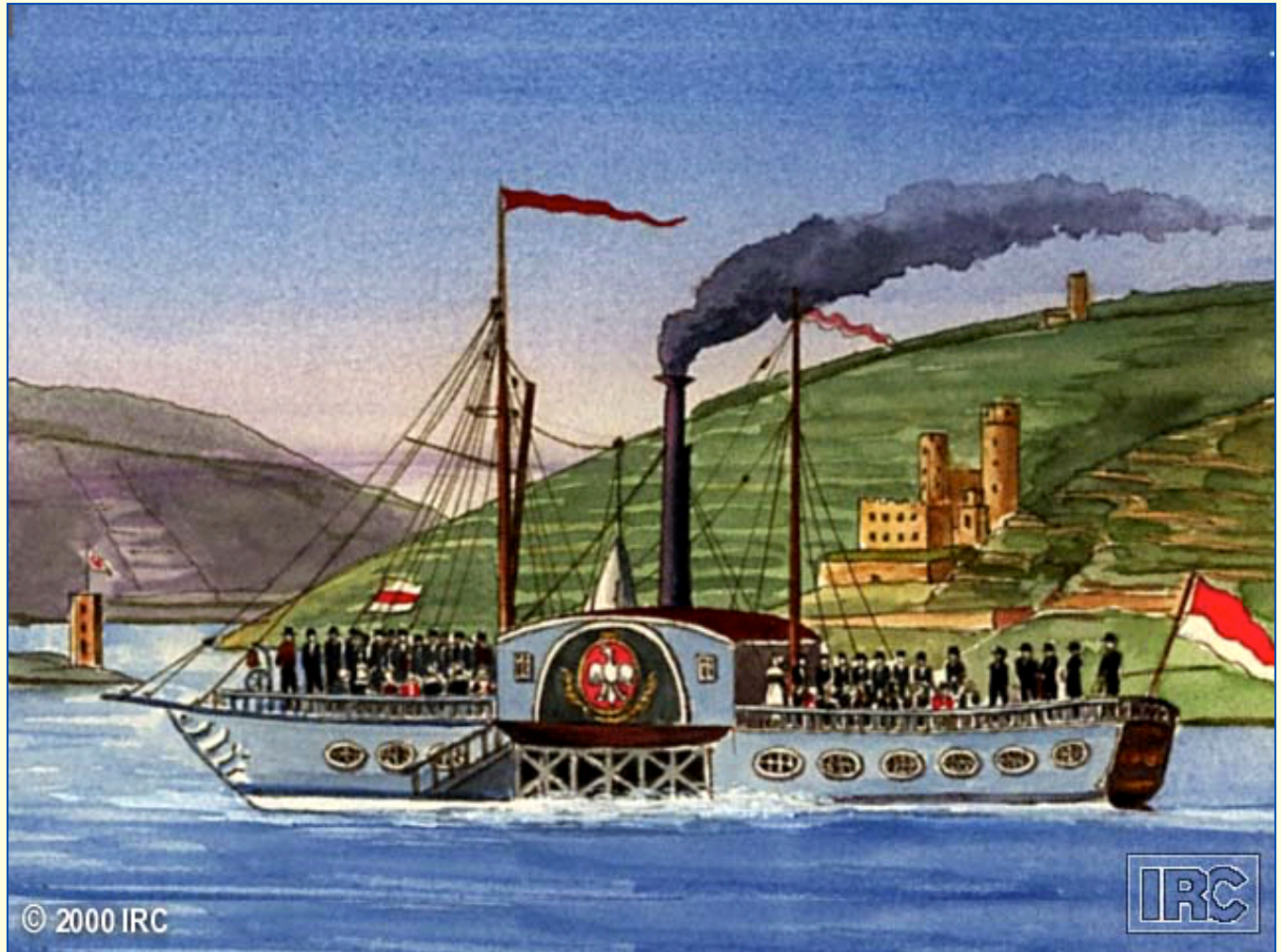


**People could
produce more
efficiently.**

**Power loom weaving
Lancashire, 1835**



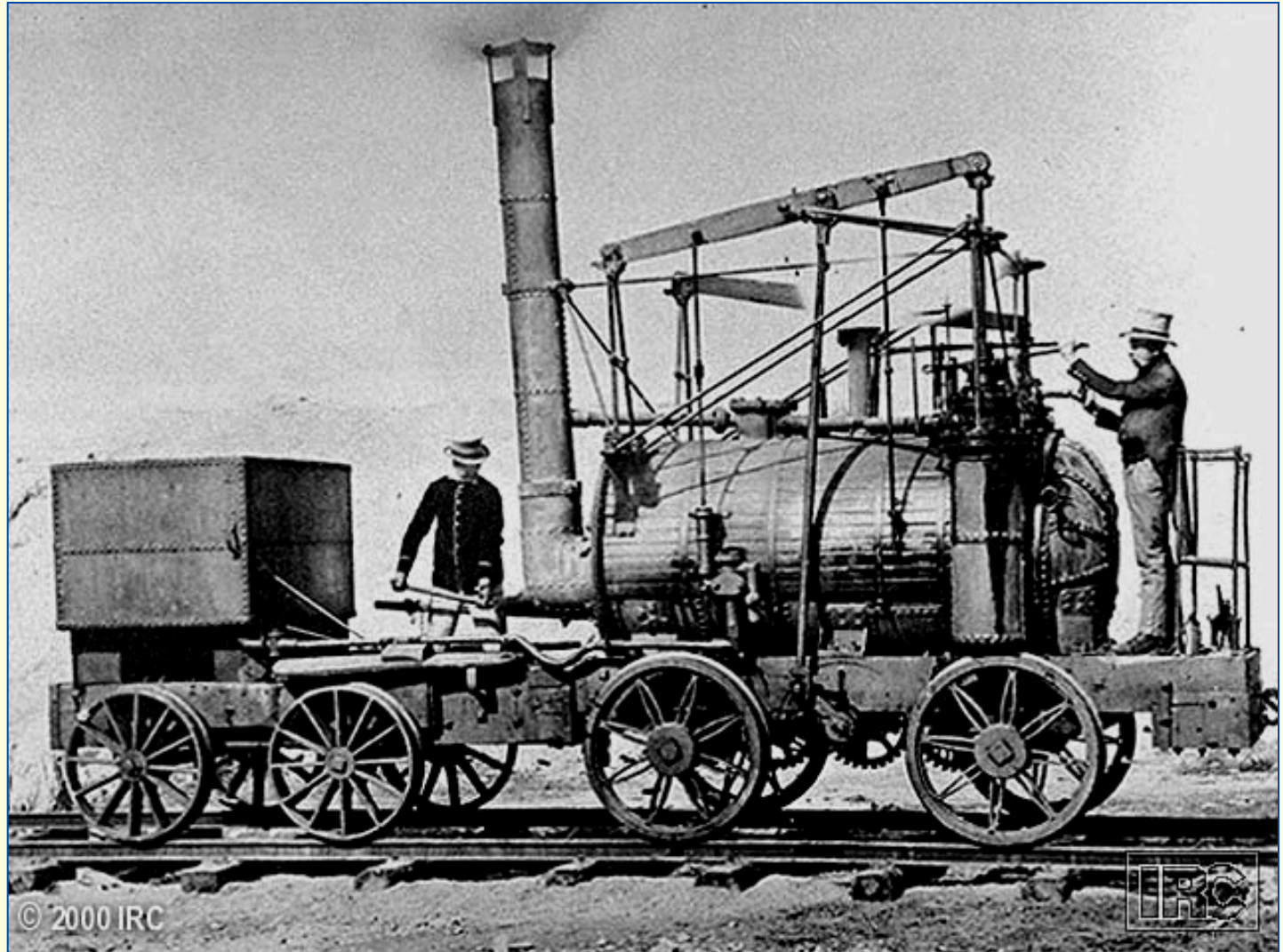
Steam Ship

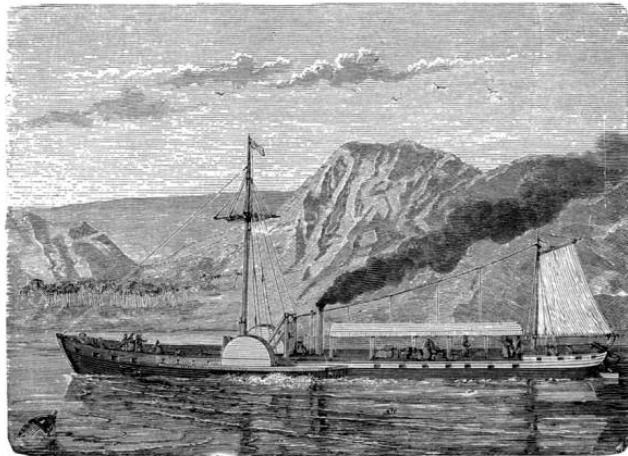


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An Early Steam Locomotive





Fultons erstes Dampfsschiff.

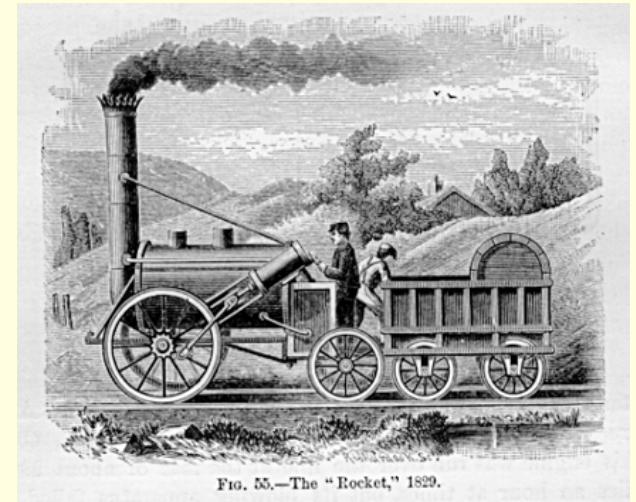


FIG. 55.—The "Rocket," 1829.

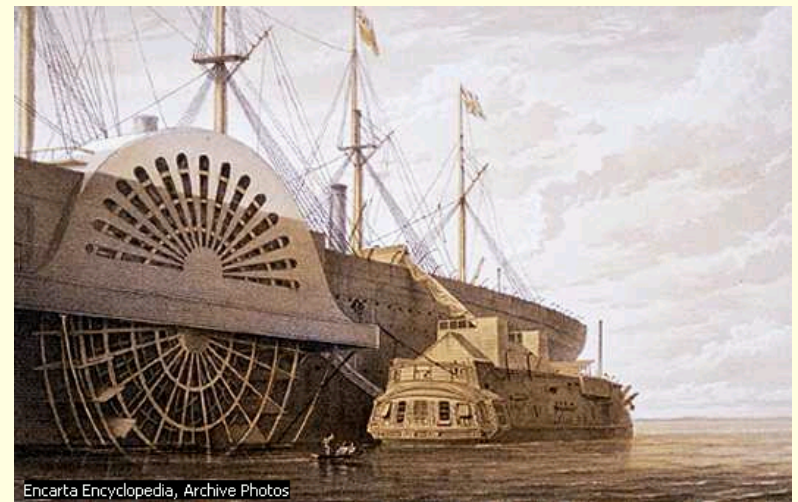
Steamboat

Railroad

The Communication Revolution

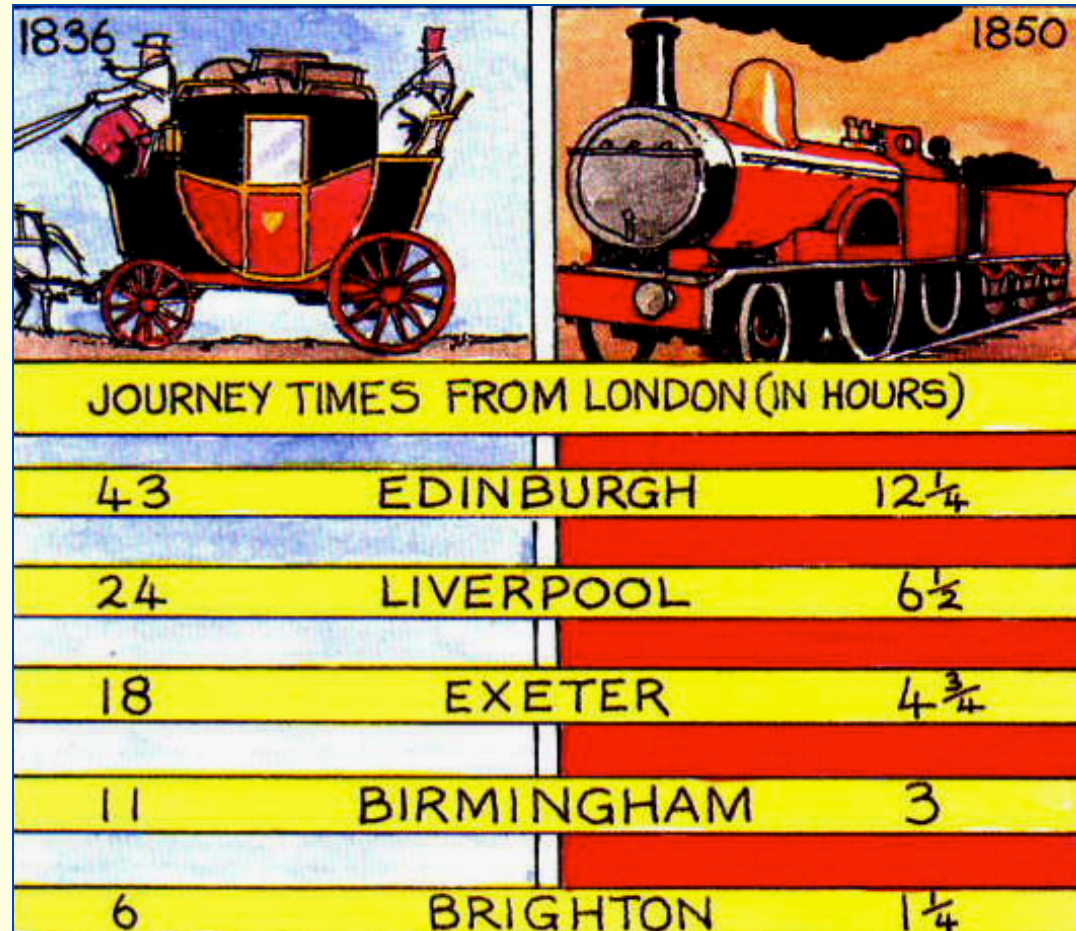
Newspaper

Transatlantic cable

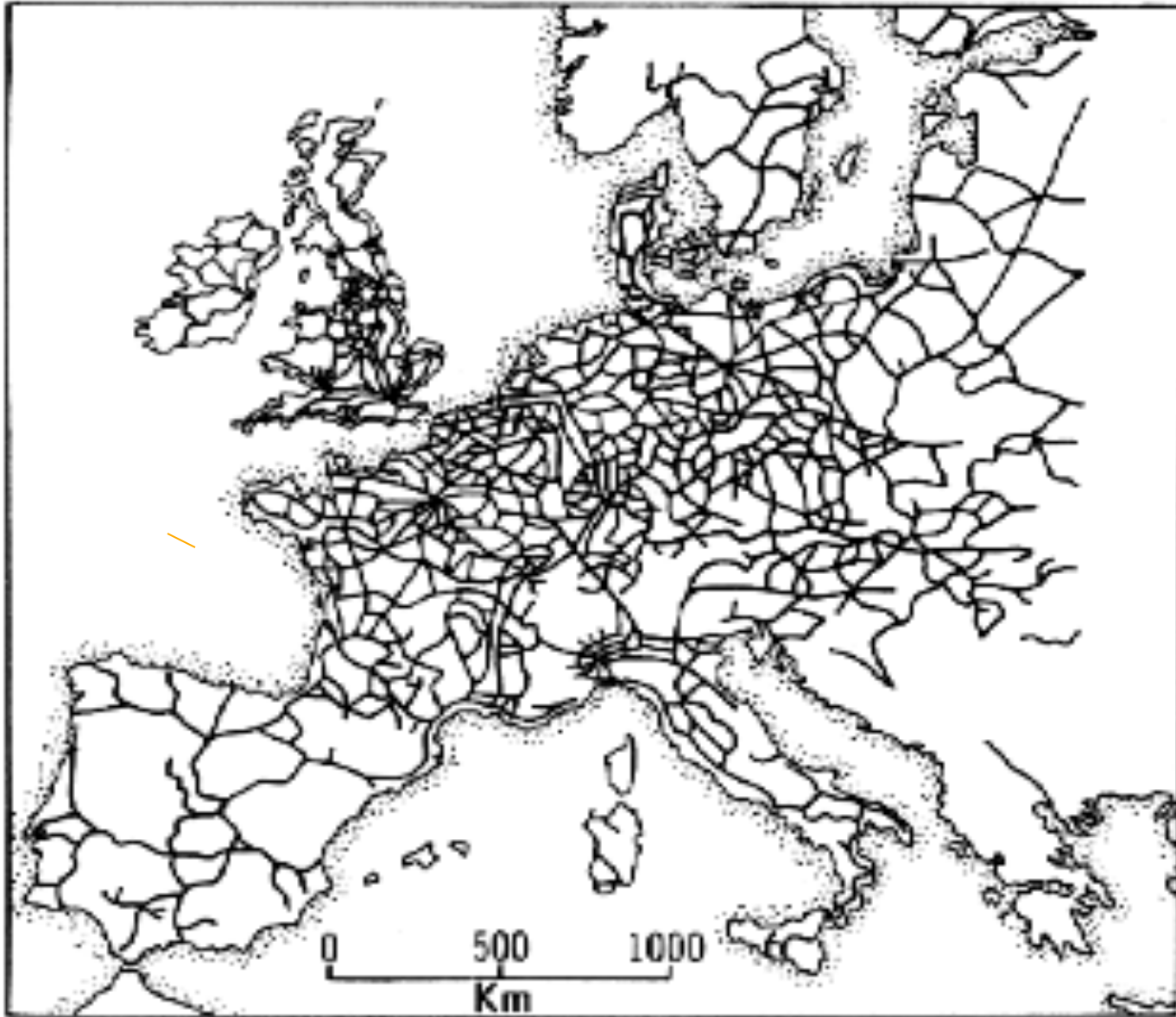


Encarta Encyclopedia, Archive Photos

The Impact of the Railroad

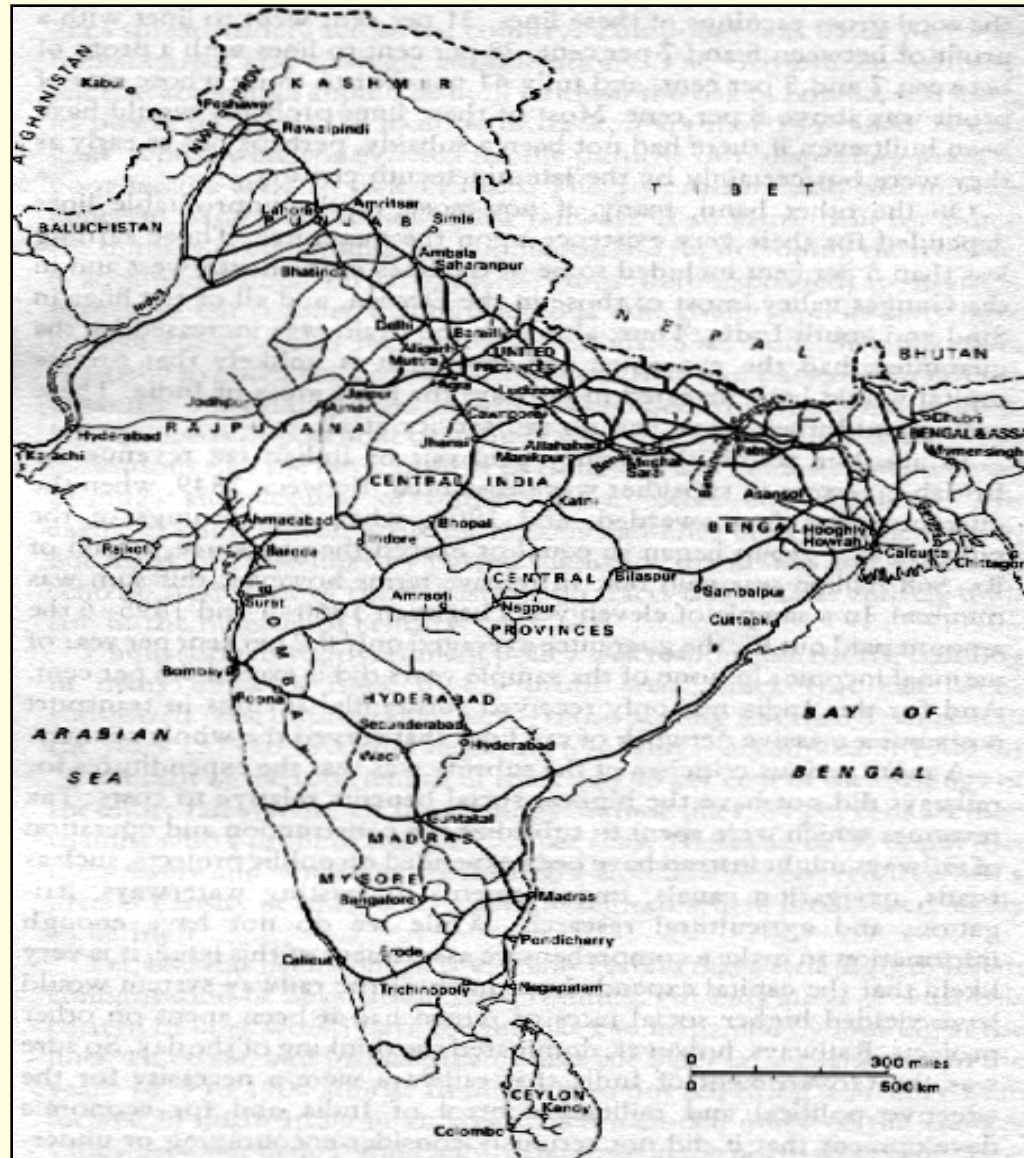


Railway Development in Europe



1880

Railway Construction in India 1853-1931



The "Haves":
Bourgeois Life
Thrived on the
Luxuries of the
Industrial Revolution

19^c Bourgeoisie: The Industrial *Nouveau Riche*



Criticism of the New Bourgeoisie



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Stereotype of the Factory Owner



“Upstairs”/“Downstairs”

Life



The "Have-Nots":
The Poor,
The Over-Worked,
& the Destitute

Factory Wages in Lancashire, 1830

Age of Worker	Male Wages	Female Wages
under 11	2s 3d.	2s. 4d.
11 - 16	4s. 1d.	4s. 3d.
17 - 21	10s. 2d.	7s. 3d.
22 - 26	17s. 2d.	8s. 5d.
27 - 31	20s. 4d.	8s. 7d.
32 - 36	22s. 8d.	8s. 9d.
37 - 41	21s. 7d.	9s. 8d.
42 - 46	20s. 3d.	9s. 3d.
47 - 51	16s. 7d.	8s. 10d.
52 - 56	16s. 4d.	8s. 4d.
57 - 61	13s. 6d.	6s. 4d.

Industrial Staffordshire

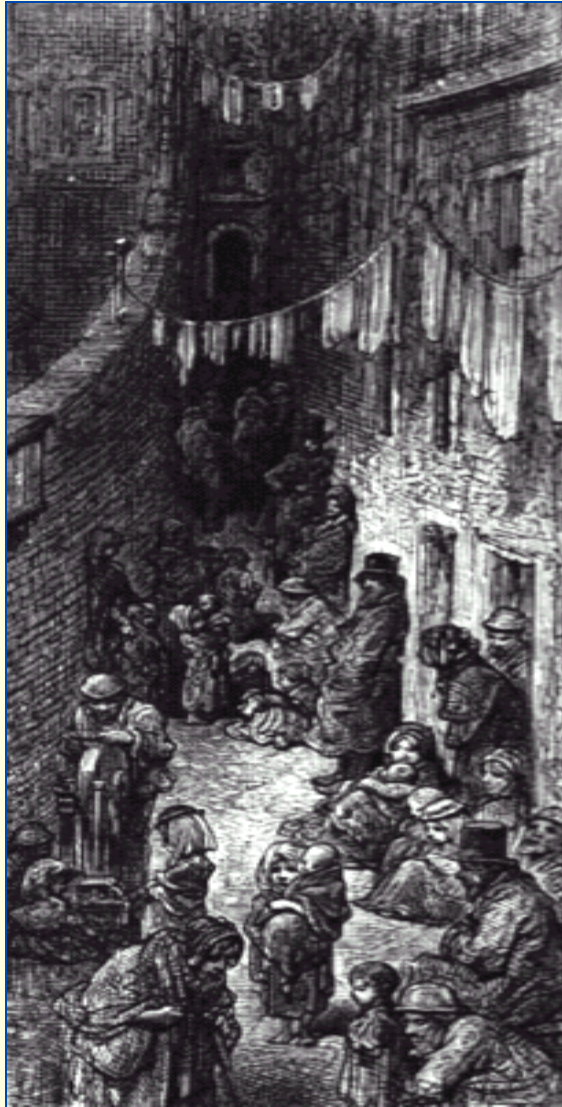


Problems of Polution

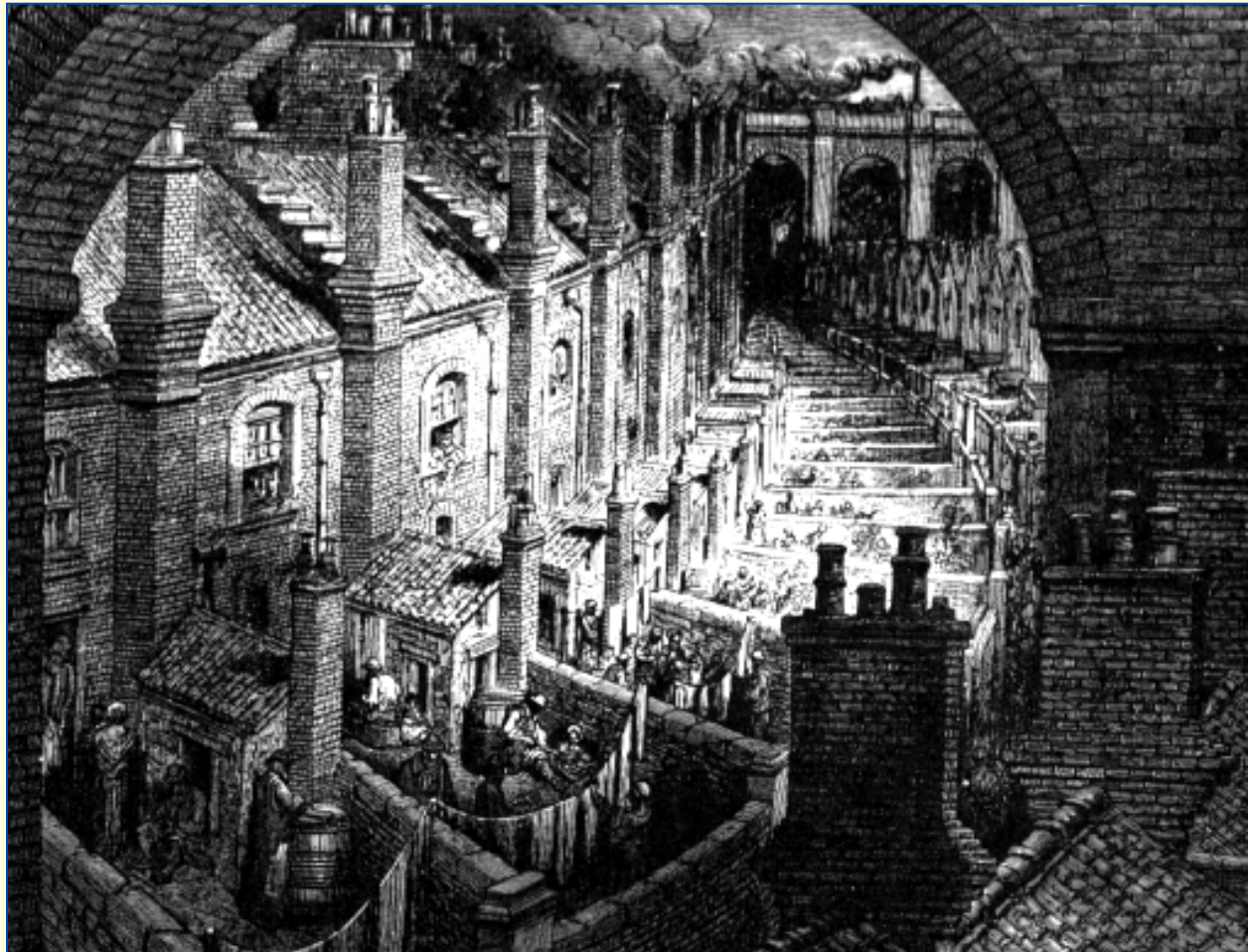


The Silent Highwayman - 1858

The New Industrial City



Early-19c London by Gustave Dore



Worker Housing in



Factory Workers at Home



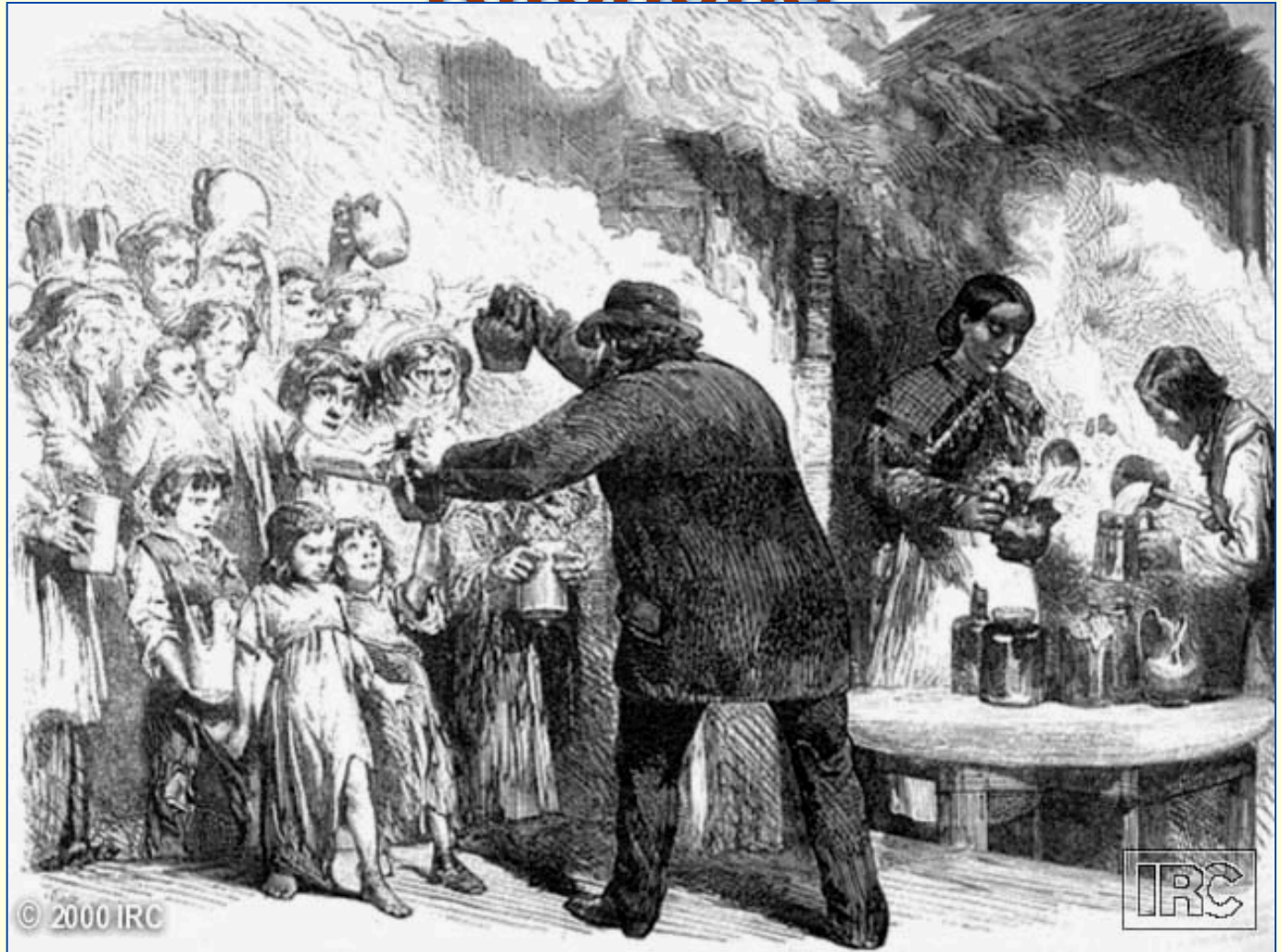
Workers Housing in Newcastle



The Life of the New Urban Poor: A Dickensian Nightmare!



Private Charities: Soup Kitchens



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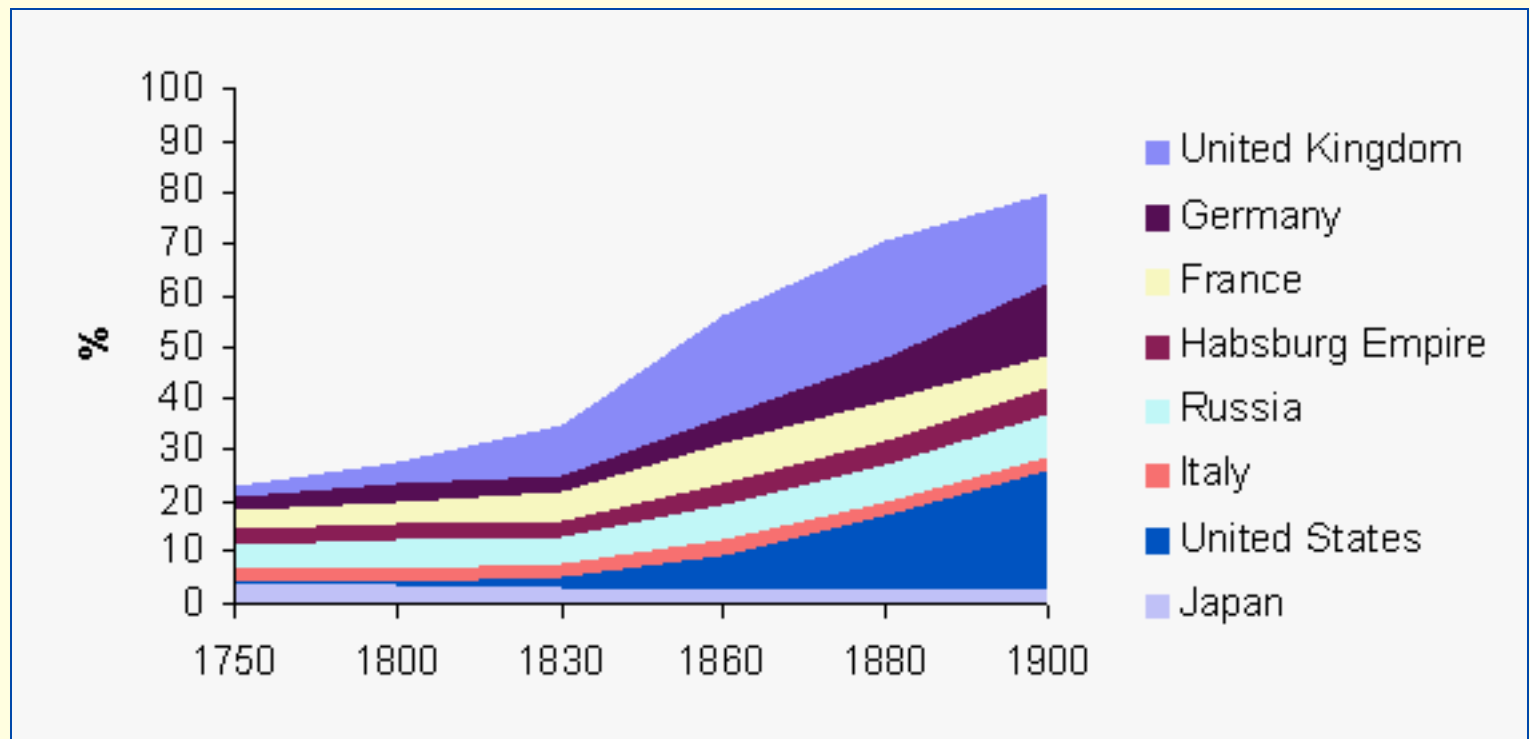
Private Charities: The “Lady Bountifuls”



Industrialization By 1850



Share in World Manufacturing Output: 1750-1900



Effects of Business Organization

- Corporations – business chartered by a government as a legal entity owned by stockholders (Individuals who buy partial ownership directly from the company)
- Monopoly – corporations control all aspects of business and eliminate competition

Social Reforms and effects of the WORLD

- Labor Unions
- Labor Laws
- Germany = most comprehensive set of social reforms for industrial workers
 - Otto von Bismarck
- Created Interdependence among people and nations

Case Studies of Industrialization

- Britain
- France, Germany, Belgium
- US (1820 – 1870) Civil War and Immigrant Labor
 - Trans-Continental Railroad
 - Women's Suffrage Movements
- Late 1800s – Russia and Japan
 - Russia – Trans-Siberian Railroad
 - Japan – Hired thousands to instruct Japanese workers
 - By 1900 Japan was most industrialized in Asia
- During Second Industrial Revolution:
 - Other countries began catching up to Brit. Exports
- Nationalism and Imperialism

Case Studies of Industrialization

- Germany

- Unified: 1871

- State-supported industrialization

- Associated industrialization with nationalism

- The state gave huge gov't contracts and loans to help some companies grow quickly

- Created social programs to keep workers happy

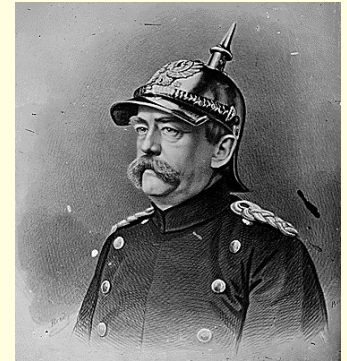
- Socialist Party expanded anyway

- After 1890: military growth triggered a Euro. **arms race**

- Kaiser Wilhelm II



Kaiser Wilhelm I



Chancellor

Otto von
Bismarck



Kaiser Wilhelm II

Case Studies of Industrialization

- Japan

- Industrialization began during the Meiji Era (1868-1914)
- Specifically emulated the German model of government and industry.
 - Large new companies = Zaibatsu
- Encouraged loyalty, hard work, and devotion to the Emperor through “state Shinto”.



Emperor Meiji



Case Studies of Industrialization

- Russia

- Crimean War (1854-1856)

- Rus. lost to Ottoman-Brit.-French. alliance
 - Showed Rus. they needed to modernize

- Industry was **entirely** state-controlled

- The Czars remained extremely **authoritarian**
 - No unions, voting, or social reform allowed
 - Standard of living and working conditions remained extremely poor
 - Socialism was illegal, but became popular and very **radical** among the working class.
 - » Marxist Bolshevik Party



Czar Nicholas
II “the Bloody”



Vladimir Lenin

Industrialization and Latin America

- After independence:
 - Oligarchies of creoles dominated society and econ.
 - Supported caudillos (military dictators) who protected their interests.
 - Constitutions were ignored.
- Depended on:
 - Exports of food and natural resources to industrial countries.
 - Investment in infrastructure by industrial countries.

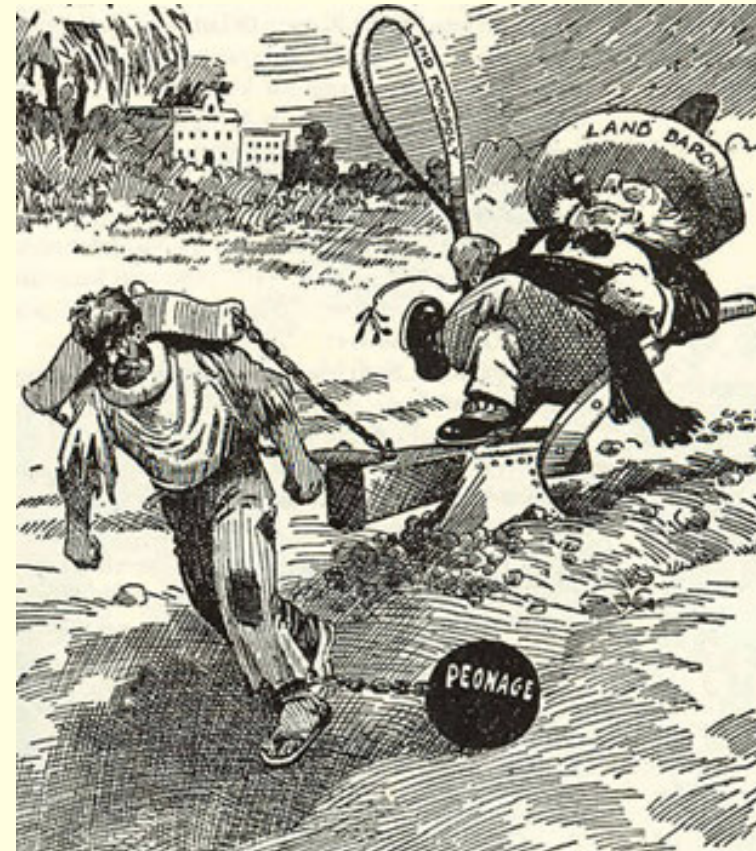


Resources, Immigration, and Foreign Investment in Latin America



Industrialization and Latin America

- By 1914...
 - Little to no industrialization
 - Resource-owning elites were supported and defended by industrial nations
 - “Banana Republics”
 - Most countries were still dominated by caudillos
 - Most of population = very poor farm laborers on creole-owned haciendas (plantations)



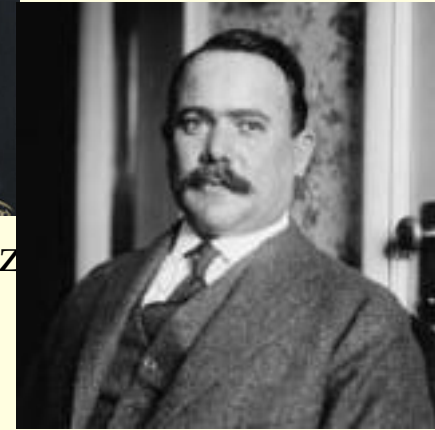
Industrialization and Latin America

- Mexican Revolution (1910-1920)

- First major nationalist peasant and native rebellion in Latin America
- Goals
 - Overthrow the *caudillo* Porfirio Diaz
 - Liberal constitutional gov't
 - Restrict foreign control of economy
 - Nationalize natural resources and Catholic Church land
 - Land reform for peasants



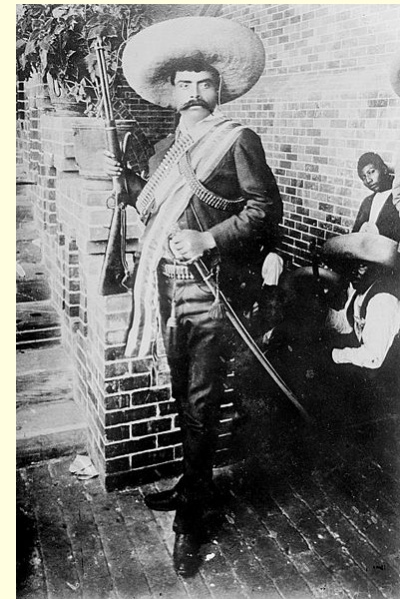
Porfirio Diaz



Alvaro Obregon



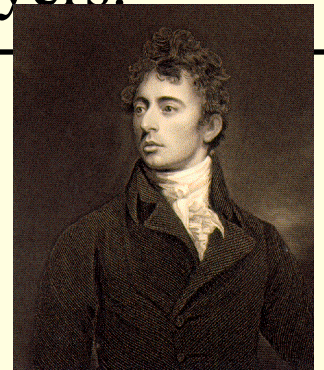
Pancho Villa



Emiliano
Zapata

Source: Robert Southey, English Romantic poet, after visiting Manchester in 1807, *Colloquies on the Progress and Prospects of Society*, 1829.

A place more destitute than Manchester is not easy to conceive. In size and population it is the second city of the kingdom. Imagine this multitude crowded together in narrow streets, the houses built of brick and blackened with smoke: frequent buildings among them as large as cathedrals but without their antiquity, without their beauty, without their holiness, where you hear from within the everlasting din of machinery; and where, when the bell rings, it is to call the wretches to their work instead of their prayers.



Source: Alexis de Tocqueville, French visitor to Manchester, *Journeys to England and Ireland*, 1835.

Everything in the outward appearance of the city attests to the individual powers of man; nothing to the directing power of society. Nowhere do you see happy ease taking his leisurely walk in the streets of the city or going to seek simple enjoyment in the surrounding country. A multitude passes along without stopping; it looks abstracted, its aspect somber and uncouth.

From this foul drain the greatest stream of human industry flows out to fertilize the whole world. From this filthy sewer pure gold flows. Here humanity attains its most complete development and its most brutish; here civilization works its miracles, and civilized man is turned back into a savage.



- Food production up
- Thomas Malthus!

Ideological Consequences of the Revolutions

- Conservatism – Disapproved of the revolutions and change
- Liberalism – Emphasis on liberty or freedom from oppression, rather than equality. Wanted a legislature who represented the people
- Radicalism - advocated drastic changes in government and more equality than liberty. Concentrated with gap between elite and general population.
 - Jacobins and Marxism were variations of this ideology

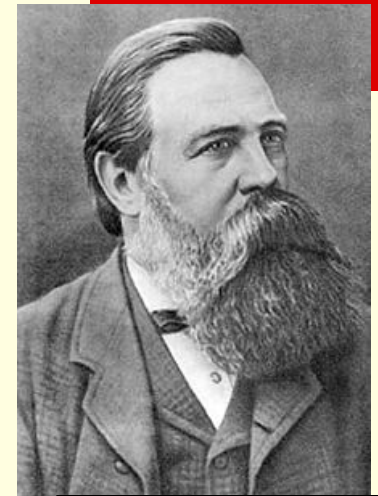
Economics and the Industrial Revolution

- **Capitalism** – system of privately owned businesses seeking profits
 - Adam Smith – Wealth of Nations in 1776
 - Government refrain from interfering in business
 - Laissez Faire

- **Socialism** – factors of production owned by, operated for the people
- **Communism/Marxism** - Karl Marx – German philosopher
 - Wrote Communist Manifesto
 - Haves and the Have-nots
 - Communism: Small, elite group own production of goods in a country
 - Capitalism exploited workers and increased gap between rich and poor

A black and white portrait of Karl Marx, showing him from the chest up. He has a full white beard and is wearing a dark suit with a white shirt and a dark bow tie.

**Karl
Marx**



Friedrich Engels

Influenced Women's Reform Movements

- Mary Wollstonecraft – English – wrote *A Vindication For Women's Rights*

Conservative Reactions to the Reforms and Inequalities

- **Scientific Racism** – Idea popular among conservative thinkers of industrialized societies
 - Used scientific reasoning and evidence to prove its premise that blacks are physiologically and mentally “inferior” to whites
- **Social Darwinism** – Philosophy to justify differences between the rich and the poor to explain why some get rich and others get poor. In the competition for favored positions and bigger shares of wealth, the strong intelligent, and motivated naturally defeat the weak and less intelligent and lazy Reforms

REVOLUTIONS OF INDUSTRIALIZATION, 1750-1914

- Utopianism

- Socialism can be achieved by organizing **utopian** communities in which managers and workers cooperate.



Robert
Owen

Source: Robert Owen, *The Social System*, 1826

There is but one mode by which man can possess all the happiness which his nature is capable of enjoying, — that is by the **union and co-operation of all for the benefit of each.** Union and co-operation in war obviously increase the power of the individual a thousand fold. Is there the shadow of a reason why they should not produce equal effects in peace; why the principle of **co-operation** should not give to men the same superior powers, and advantages, in the creation, preservation, distribution and enjoyment of wealth?



Source: Louis Blanc, French political leader, *The Organization of Labor*, introduction to the second edition, 1848.

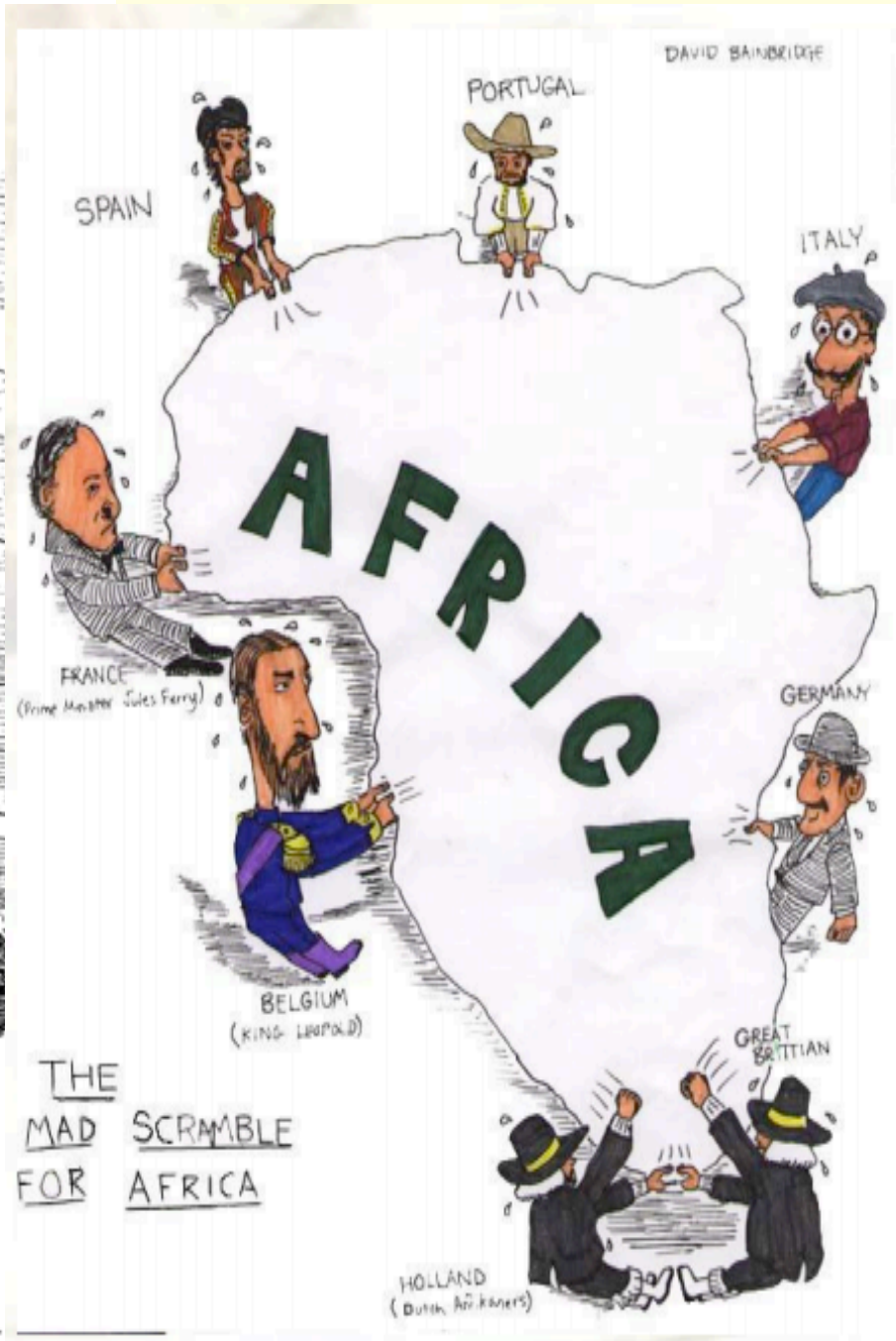
Have we avowed that our goal is to undermine competition, to withdraw industry from the regime of *laissez-faire*? Most certainly, and far from denying it, we proclaim it aloud.

Why? Because we want freedom. But real freedom, freedom for all. . . . We want a strong government because, in the regime of inequality within which we are still vegetating, there are weak persons who need a social force to protect them.



Building a German Empire

- Otto von Bismark becomes chancellor of Germany
- Germany becomes an industrial leader in Europe
- Bismark had funded largest army in Europe, built a strong navy, increased German nationalism
- Nationalism: Extreme pride in a country (or nation)
- Nationalism + Industrialization + Militarism = First World War!



EUROPEAN IMPERIALISM: 1800-1914

- The “New Imperialism”
 - Between 1800 and 1914, industrialized western nations used their new technological and economic power to dominate much of the world.

II: METHODS OF EMPIRE-BUILDING, 1800-1914

- Protectorates

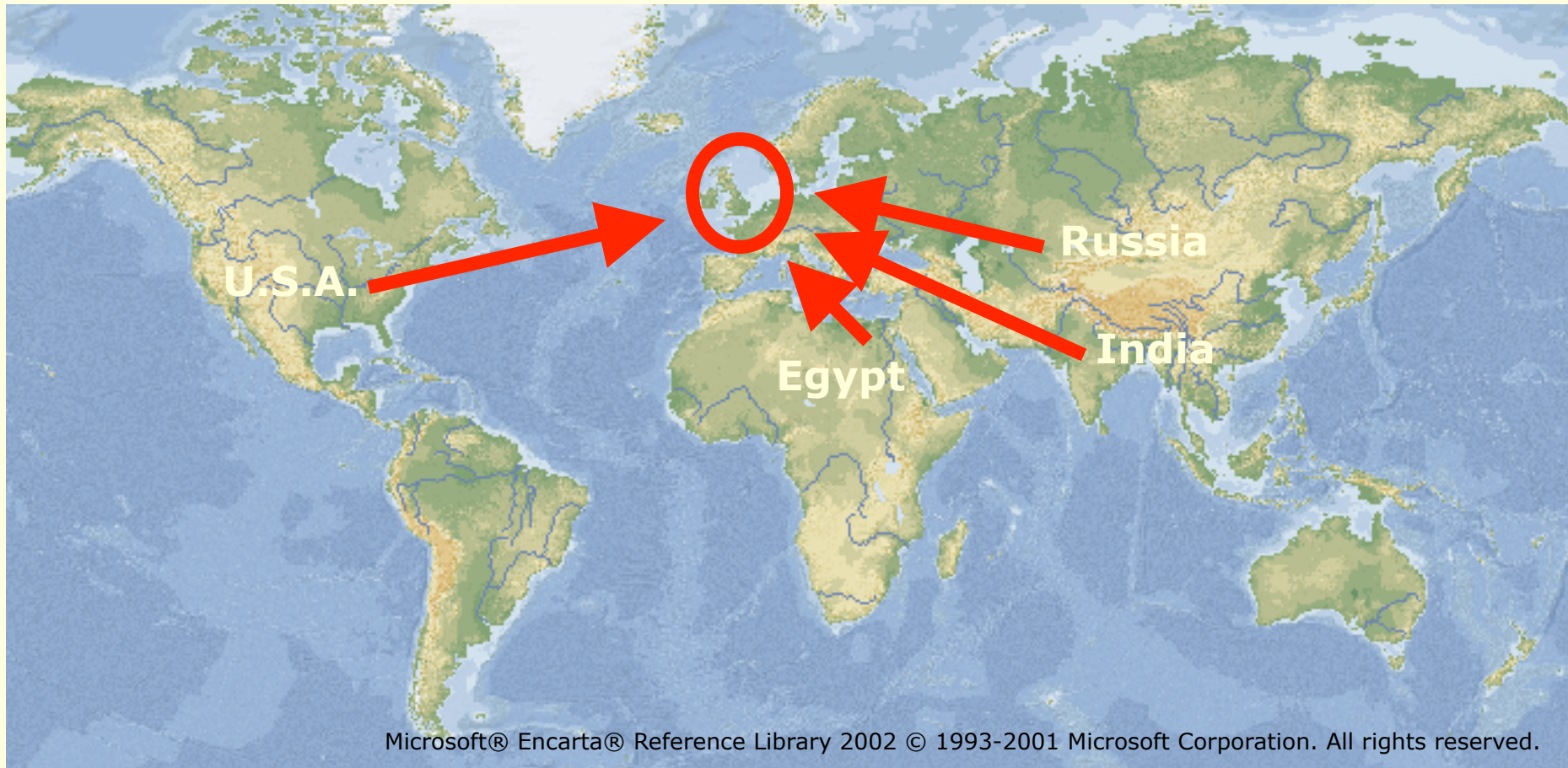
- Colonies in which local rulers and elites remained in power, but formally agreed to be under the “protection” and influence of a Western nation or corporation.

- Examples:

- British Egypt
 - British control over “princely states” in India
 - French Indochina
 - French Ivory Coast

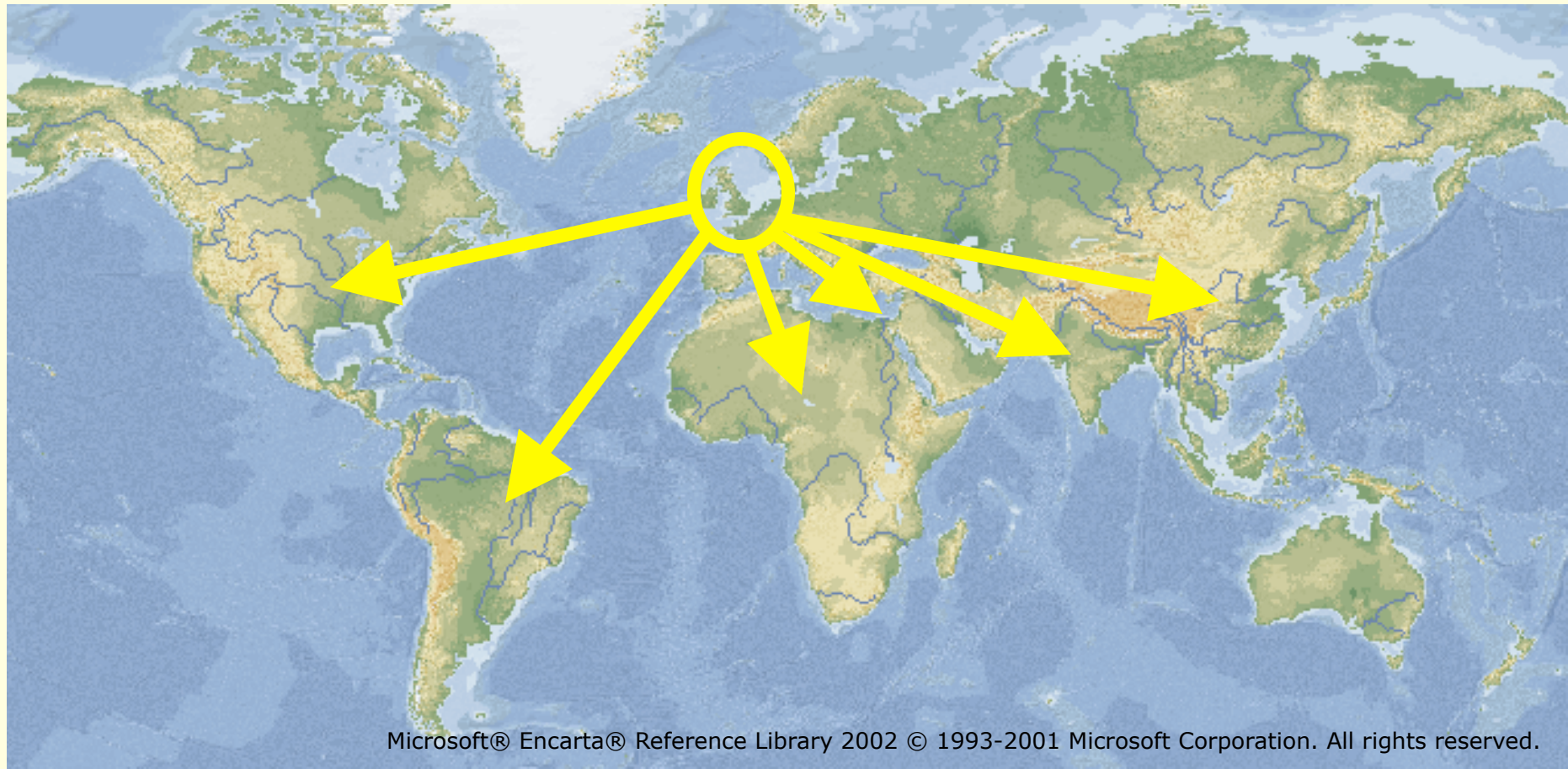
III: EFFECTS OF IMPERIALISM ON CONQUERED PEOPLES

- Economic effects could include...
 - Mass production of raw materials and food for export replacing local use farming
 - Sugar and coffee in Dutch East Indies
 - Cacao in Brit. West Africa
 - Rubber in the Belgian Congo
 - Fruit and coffee in Central America
 - Beef in Argentina
 - Guano in Peru
 - Palm oil in West Africa



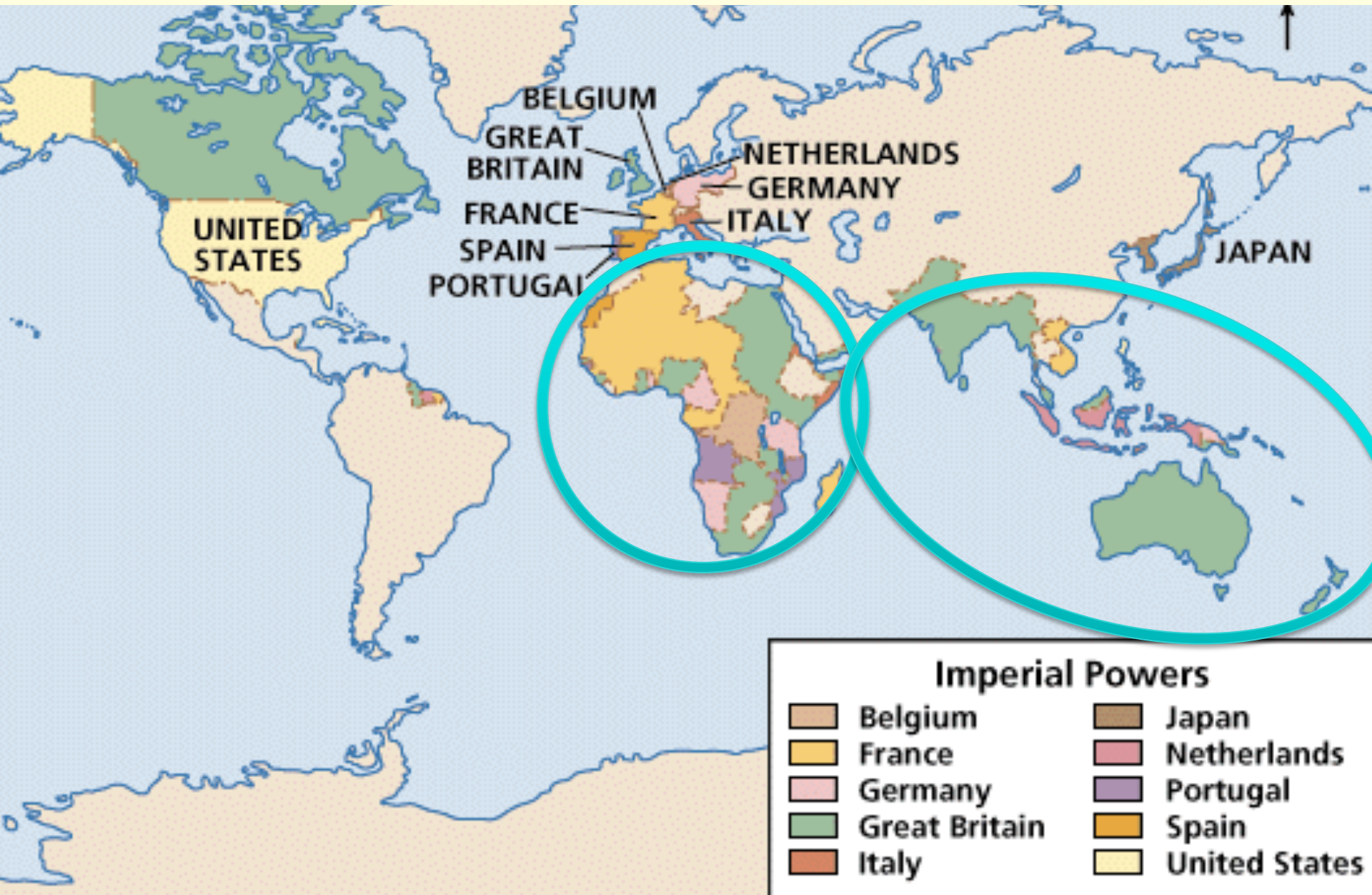
**Cotton exports from agrarian
economies to industrial
economies**

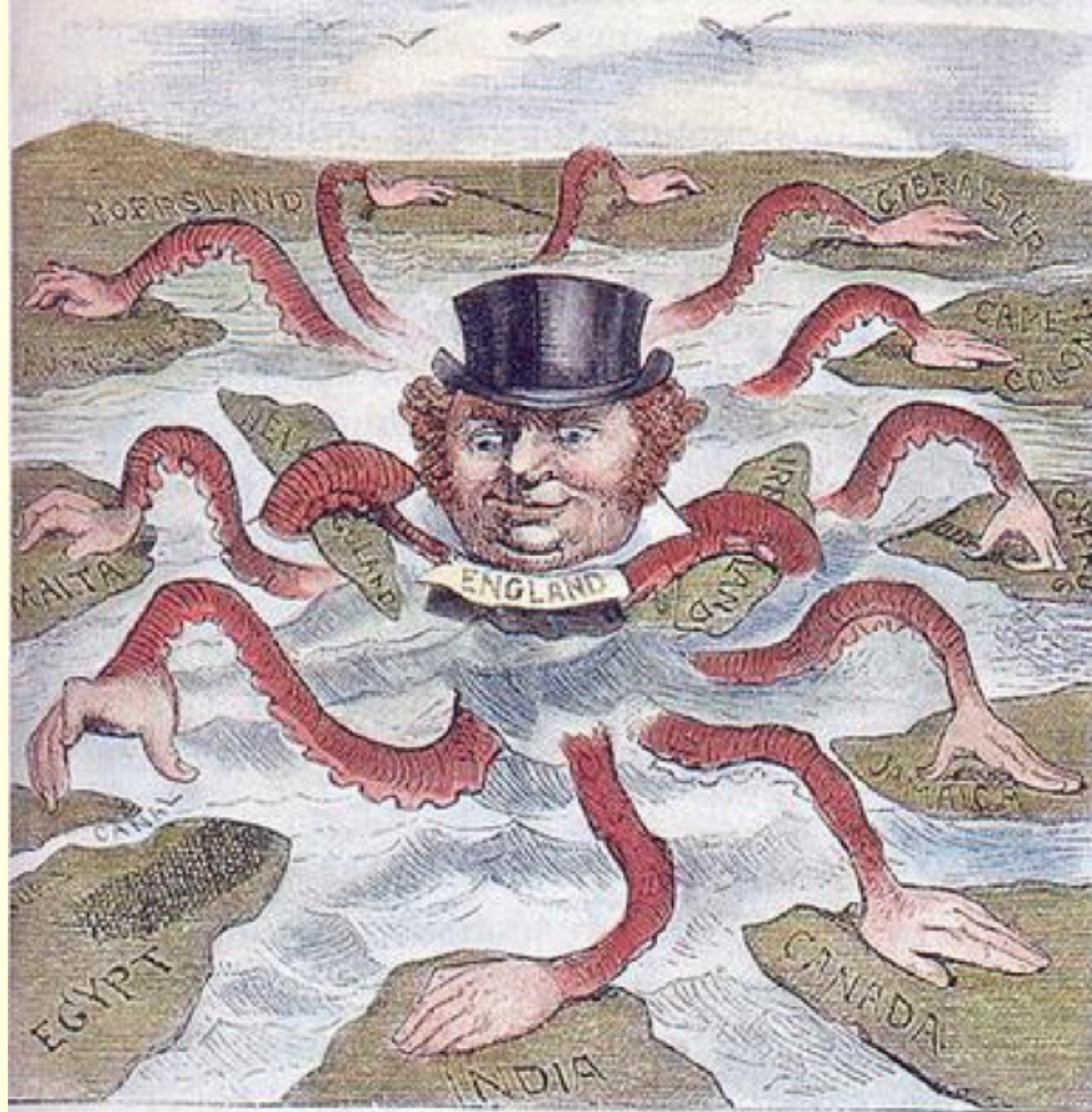




**Textile exports from industrial
to agrarian economies** →

The “NEW Imperialism” (1800-1914)





EUROPEAN IMPERIALISM: 1800-1914

- Compared to the first wave of European imperialism (1500-1800), the New Imperialism (1800-1914)...
 - Resulted in Western control over regions that had previously remained independent.
 - Africa, Asia
 - Happened much more rapidly due to new tech.

Motives for the New Imperialism

- **Political – demand for raw materials**

- Open up to new markets
- China and Latin America

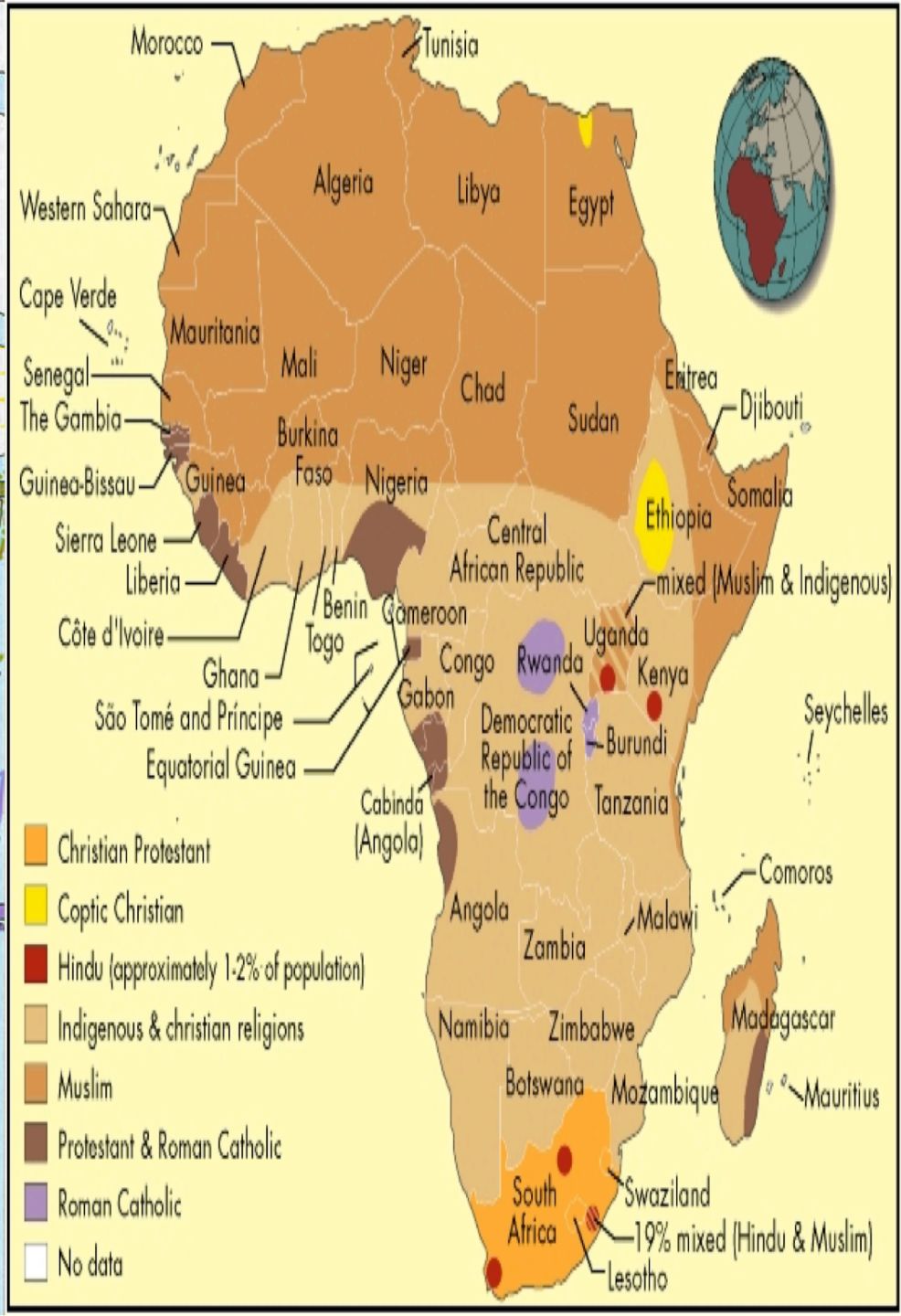
- **Cultural (nationalism)**

- Nationalism and general racism

- **Economic**

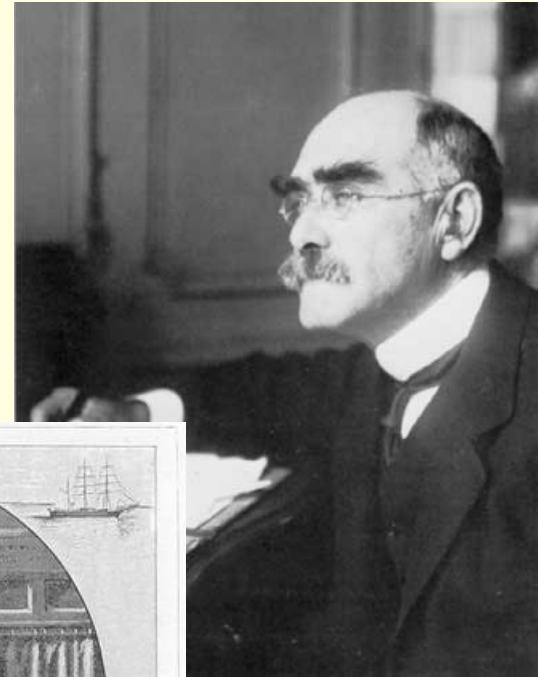
- Trade controlled by colonizing country





Ideology: Nationalism and Social Darwinism

- **"White Man's Burden"**: racist patronizing that preached that the "superior" Westerners had an obligation to bring their culture to "uncivilized" peoples in other parts of the world - Poem by Rudyard Kipling
- Basically to spread Christianity
- Christian Missionaries usually sent first as "explorers"



The Suez Canal

- Egypt
- Opened in 1869
- British easy access to
Conquer Africa (Egypt)



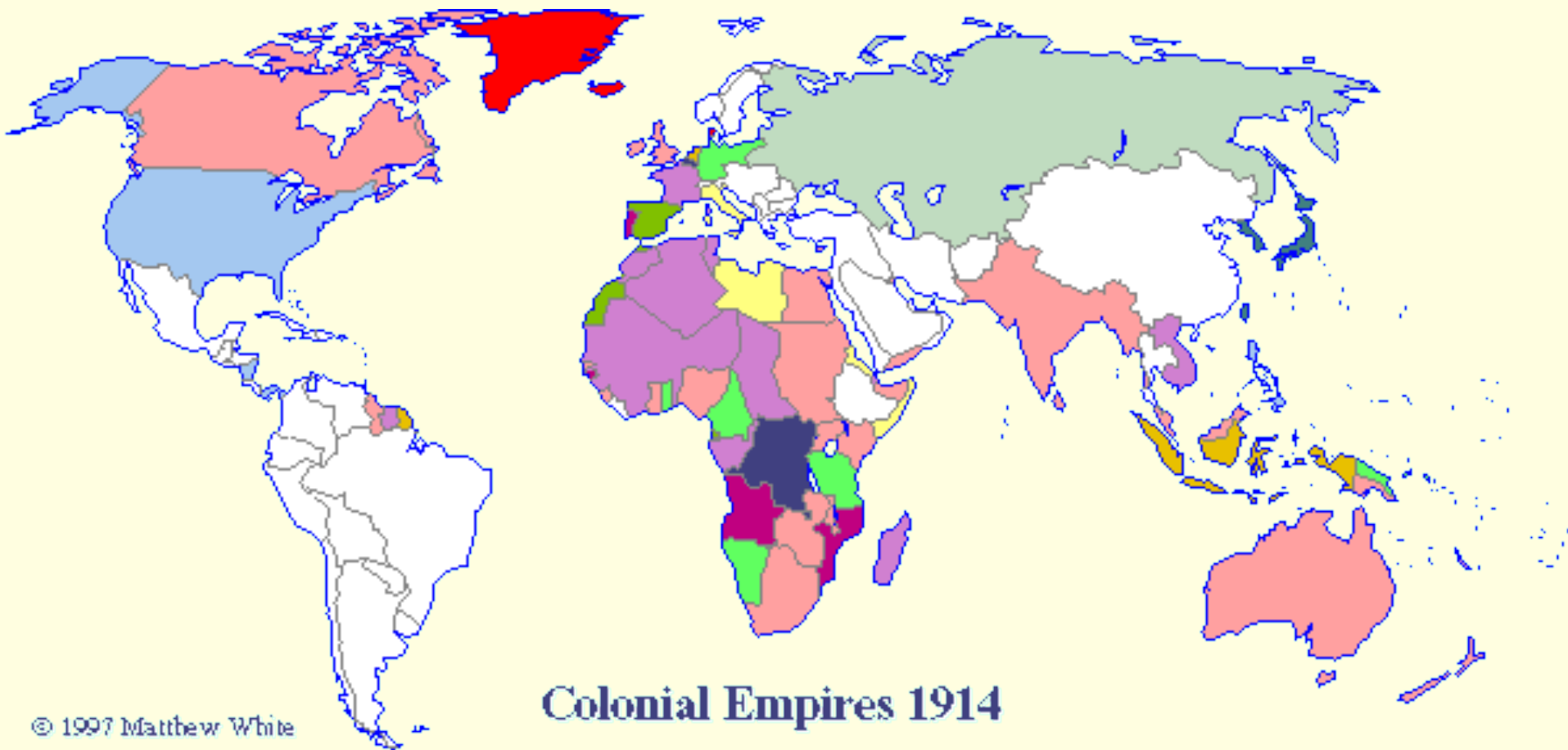
EUROPEAN IMPERIALISM: 1800-1914

• Enabling technologies...

- New weapons
 - Repeating rifles
 - Machine guns
 - Heavy artillery
- New transport and communication
 - Steamships
 - Railroads
 - Telegraph
- New medicine
 - Quinine (**malaria** treatment)
 - Vaccines



**And more of the world was colonized
than ever before.**



Belgium	France	Great Britain	Japan	Portugal	Spain
Denmark	Germany	Italy	Netherlands	Russia	United States

Colonies & Protectorates in Africa around 1914



British

- Conference Goals:
 - Claim all of Southern Africa to gain access to precious minerals like gold, bauxite, and diamonds.
 - Claim the entire coastal area of western Africa to claim trade goods like peanuts, sisal twine, and rubber, as well
 - as minerals like gold and magnesium.
 - Connection of your northern colonies in Egypt to colonies along the Nile River

Berlin Conference

- **Belgium: Conference Goals:**
 - Exclusive control and access to the Congo region of central Africa
 - Access to gold and diamond deposits found in southern Africa
 - Territorial expansion so you'll be taken seriously by other European powers

France

- Conference Goals:
 - Expansion of French control along the Mediterranean region and western coast of Africa
 - Access to trade goods such as rubber, cotton, tropical hardwoods, palm oil, and cocoa.
 - Access to gold and diamond deposits found in western and southern Africa

The Netherlands

- Conference Goals:
 - Complete and total control over Southern Africa
 - Removal of British control from Southern Africa
 - Access to natural mining resources such as iron, copper, diamonds, and gold

Portugal

- Conference Goals:
 - Expansion of colonial outposts bordering the Atlantic Ocean and Gulf of Guinea.
 - Control of coastal areas near Madagascar
 - Claim to natural resources such as coffee, diamonds, iron, copper, and magnesium.

EFFECTS OF IMPERIALISM ON COLONIES

POSITIVE

- New roads & railroads link parts of India
- Telegraph & postal systems unite people
- Irrigation systems improve farming
- New laws mean justice for all classes
- British schools offer education
- Customs that threaten human rights are ended

NEGATIVE

- Indian resources go to Britain
- British made goods replace local goods
- Farms grow cash crops rather than food crops; Indians go hungry
- Top jobs go to British
- Indians are treated as inferiors
- Britain tries to replace Indian culture with western ways

POSITIVE

- European medicine & improved nutrition increased life span of Africans. This caused an increase in population.
- Modern transportation & communications; telegraphs, railroads, steamships, and telephones
- A small minority received improved education and economic opportunities.

NEGATIVE

- European domination led to an erosion of traditional African values and destroyed many existing social relationships
- African peoples were treated as inferior. Forced to work long hours for low pay.
- Europeans divided up Africa ignoring tribal, ethnic, and cultural boundaries. These divisions have led to ongoing tribal clashes